ARGENTINA'S ECONOMIC CRISIS: CAUSES AND CURES

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Summary

In 1998, Argentina entered what turned out to be a four-year depression, during which its economy shrank 28 percent. Argentina's experience has been cited as an example of the failure of free markets and fixed exchange rates, among other things. The evidence does not support those views. Rather, bad economic policies converted an ordinary recession into a depression. Three big tax increases in 2000-2001 discouraged growth, and meddling with the monetary system in mid 2001 created fear of currency devaluation. As a result, confidence in Argentina's government finances evaporated. In a series of blunders that made matters even worse, from December 2001 to early 2002, succeeding governments undermined property rights by freezing bank deposits; defaulting on the government's foreign debt in a thoughtless manner; ending the Argentine peso's longstanding link to the dollar; forcibly converting dollar deposits and loans into Argentine pesos at unfavorable rates; and voiding contracts. Achieving sustained long-term economic growth will involve re-establishing respect for property rights.

A summary version of this study is available on the Web site of the Vice Chairman's Office of the Joint Economic Committee.

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In 2002, Argentina's economy suffered its worst year since 1891, culminating an economic slump that began in late 1998. Box 1 lists some statistics of the crisis. Argentina's crisis caused recessions in Paraguay and Uruguay and contributed to a slow economy in Brazil, because Argentina is a major trading partner for all.

Argentina is the latest of many large developing countries to have suffered currency and financial crises since Mexico's crisis of 1994-95.[1] Argentina's unhappy experience has been used as evidence that free-market economic policies lead to catastrophe, that fixed exchange rates do not work, and other such general propositions about economic policy. Understanding what happened in Argentina, and whether it lends credence to those propositions, may help prevent or alleviate future financial crises. This report differs from most other recent writings about Argentina's crisis in its combination of breadth and depth. It summarizes Argentina's long history of economic problems; describes the recent crisis; analyzes explanations for the crisis; discusses what Argentina could have done to prevent the crisis and could do now to speed recovery; and examines the implications of the crisis for the "international financial architecture" and U.S. policy to improve the architecture.

Box 1. A snapshot of the crisis (1998-2002) in statistics
• Real gross domestic product (GDP) fell 28% from peak (1998) to trough (2002). • Argentina's currency, the peso, equal to US$1 since April 1991, was devalued in January 2002 and depreciated to nearly 4 per dollar before partly recovering. • Inflation, low or negative since the early 1990s, was 41% in 2002. • Unemployment, excluding people working in emergency government relief programs, rose from 12.4% in 1998 to 18.3% in 2001 and 23.6% in 2002. • The poverty rate rose from 25.9% in 1998 to 38.3% in 2001 and 57.5% in 2002. • In real terms (that is, adjusted for inflation), wages fell 23.7% in 2002. • In real terms, supermarket sales fell 5% in 2001 and 26% in 2002.

I. BACKGROUND TO THE CRISIS

Argentina's turbulent economic history. Argentina's recent difficulties are unusual only for their severity. The country has a history of chronic economic, monetary and political problems. After overthrowing the Spanish colonial government in a war of independence that began in 1810, Argentina's provinces fought among themselves. There was persistent political and economic tension between the more remote provinces and the pampa—the vast fertile plain whose hub is the city of Buenos Aires. In muted form, the split continues today. The city of Buenos Aires is richer than the rest of the pampa, and the pampa is richer than most of the rest of Argentina. No stable nationwide government existed until 1862. During the first half-century of independence the provinces and the

[1] Joint Economic Committee (2001, 2002a) discusses these crises and their causes.

national government, such as it was, often financed budget deficits by printing money. Argentina suffered persistent inflation, though economic growth was respectable.

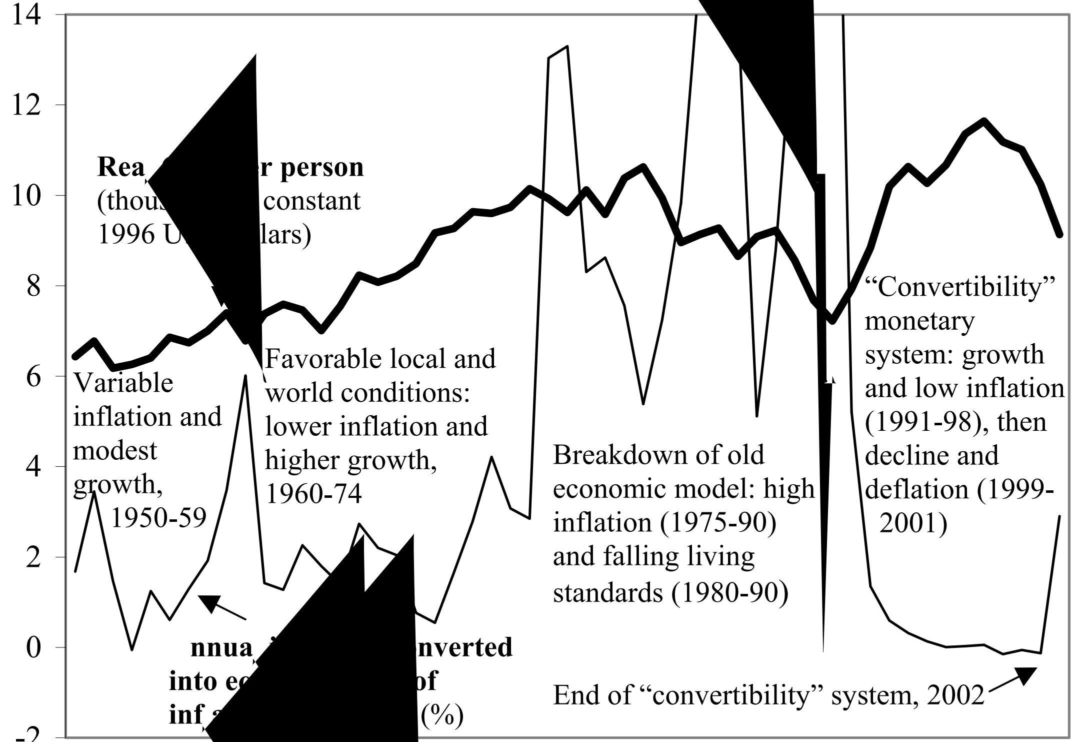
In the late 1800s, Argentina experienced an economic boom based on rising exports of wheat and beef to Europe, made possible by the new technologies of railroads and refrigerator ships. Growth in real gross domestic product (GDP) per person accelerated to a 2.5 percent a year from 1870 to 1913—a rapid rate for the era. Growth was far from smooth, though, and in 1890-91 Argentina suffered an economic crisis roughly the equal of the recent crisis. The crisis originated in the budgetary problems of Argentina's federal government. In 1889 the government repaid some domestic debt not in gold, as it had promised, but in national currency not readily convertible into gold. The results were flight of investment from the country, bank failures, currency depreciation, default by municipal and provincial governments on their foreign debt, inflation, depression, and the resignation of the president. After a dose of generally free-market reforms to fix the problems, starting in the mid 1890s Argentina enjoyed about 20 years of renewed growth. Argentina attracted foreign investment, especially from Britain; received many foreign workers, especially from Italy and Spain; developed an industrial base in Buenos Aires and some other large cities; and became one of the world's richest countries. From 1902 to 1914 Argentina had a type of "currency board" monetary system, in which the peso had a fixed exchange rate with gold and all paper money issued by the government beyond a certain amount was backed 100 percent by gold or securities denominated in gold.

The outbreak of the First World War in 1914 disrupted world financial markets and badly hurt Argentina, which then abandoned the gold standard and the currency board system. Economic growth resumed in the 1920s. Argentina returned to the currency board system in 1927, but abandoned it in 1929 under the weight of what would develop into a worldwide depression. In 1935, Argentina replaced its currency-issuing bureau with the central bank it has had ever since. During the 1930s, when important trading partners discriminated against Argentine exports, Argentina responded by beginning a switch to "import substitution"—a largely closed, self-sufficient economy, with high tariffs and extensive government direction. In the 1930s, this approach softened the effects of the Great Depression, but in later decades it reduced economic growth.

Until the 1980s, military juntas often alternated in power with elected presidents. Economic problems provided pretexts for a number of military takeovers. Between 1916 and 1989, there were no transfers of power from a democratically elected president to a democratically elected president of another party. Juan Perón, who would become Argentina's best-known president, came to power as part of a junta in 1944. He was elected president in 1946, 1951, and again in 1973.

Figure 1, on the next page, shows inflation and economic growth in Argentina since 1950. After remaining generally low since 1892, inflation became a problem starting in 1945. Typically, unresolved political pressures would result in the government spending more than it could raise by taxation and borrowing from financial markets. It would then resort to inflation to finance the deficits. Since annual inflation in Argentina

Figure 1. Economic growth and inf rgentina, 1950-2002



Sources: Hest 002) (GDP); Argentina, Instituto Nacional de Estadística y Censo (consum ce n for greater Buenos Aires, December to December, converted into av ge mont y equivalent).

has ranged from slightly below zero to thousands of percent a year, for greater readability, Figure 1 shows annual rates of inflation converted into their monthly equivalents. Because of the power of compounding, a monthly rate of inflation of 2 percent is an annual rate of 27 percent, a monthly rate of 6 percent is an annual rate of 101 percent, and a monthly rate of just over 22 percent is an annual rate of 1,000 percent.

In the 1950s, Argentina experienced variable inflation, ranging as high as 102 percent in 1959. Economic growth, expressed in terms of real GDP per person, was less than 1 percent a year. Growth accelerated in the 1960s as Argentina avoided triple-digit inflation and participated in the booming world economy of the time. In 1973, Juan Perón returned to Argentina after a forced exile of 18 years and was elected president. After he died in 1974, he was succeeded by his third wife, vice president Isabel Martínez de Perón. The Peróns were poor managers of economic policy. In 1975, annual inflation leaped to 335 percent. A junta seized power in 1976 from Isabel Perón. The junta tried to make economic reforms but never combined a coherent plan with the willpower to persist with drastic changes. During this period the government fought a "dirty war" against guerilla groups. Thousands of Argentines died during the war, mostly as victims of the military. To divert attention from increasingly severe political and economic problems, in

1982 the junta ordered an invasion of the nearby Falkland Islands, a British territory that Argentina had long claimed. British forces counterattacked and took back the islands. What political support the junta still had evaporated. In 1983, the junta transferred power to an elected civilian president, Raúl Alfonsín of the Radical Civic Union party. But President Alfonsín was no more successful at solving Argentina's economic problems than the junta had been. Real GDP per person shrank as political gridlock prevented attempted economic reforms from taking deep root and achieving success. Inflation went completely out of control starting in March 1989; its annual rate was 4,924 percent in 1989 and 1,344 percent. The extreme inflation caused economic chaos and signaled the final collapse of the closed-economy approach. President Alfonsín stepped down six months early in July 1989. The Justicialist (Peronist) party's Carlos Menem began governing with almost no transition period.

To put Argentina's economic growth into long-term perspective, consider that in 1913, real GDP per person in Argentina was 72 percent of the U.S. level—higher than France, Germany, or Sweden. By 1950, it was 52 percent of the U.S. level, still higher than Germany, which had not yet fully recovered from the Second World War. By 1990, it was just 28 percent of the U.S. level, far behind all Western European countries. Argentina did not actually become poorer, but the economy experienced stop-go growth that yielded disappointing results. From 1913 to 1990, real GDP per person grew an average of only 0.7 percent a year in Argentina, versus almost 1.6 percent a year for Latin America and almost 1.9 percent a year for the United States. (At the end of 2002, real GDP per person in Argentina was perhaps 25 percent of the U.S. level.)[2]

President Menem's economic reforms, 1989-1994. President Menem had campaigned on a vague, populist platform. After finding that its effects were bad, he switched to a free-market approach that reduced the burden of government by privatizing, deregulating, cutting some tax rates, and reforming the state. In January 1991 he appointed the energetic Domingo Cavallo as his minister of economy (like the Secretary of the Treasury in the United States, but more powerful). The centerpiece of Menem's policies was the Convertibility Law, which took effect on April 1, 1991.[3] It ended the hyperinflation by establishing a pegged exchange rate with the U.S. dollar and backing the currency substantially with dollars. As Cavallo explained a number of times, the idea of the Convertibility Law was to give holders of Argentine currency a property right to the dollars backing the currency—something they had not had in two generations. The exchange rate was initially 10,000 Argentine australes per dollar; on January 1, 1992 the peso replaced the austral at 1 peso = 10,000 australes = US$1.[4] Inflation plummeted from 1,344 percent a year in 1990 to an annualized rate of 29 percent for the portion of 1991 during which the Convertibility Law was in force; it fell below 4 percent by 1994 and still lower for every later year of the "convertibility" system. Argentines were allowed to

[2] The history is based mainly on Davis and Gallman (2001) and Della Paolera and Taylor (2001). Figures on GDP per person to 1990 are from Maddison (2001, pp. 185, 195), who uses a purchasing power basis for his calculations. The figure for 2002 is this study's rough estimate. Measuring GDP per person on an exchange rate basis, Argentina's GDP per person was less than 8 percent of the U.S. level in 2002.

[3] Law 23.928. The Law on Reform of the State (Law 23.696, 1989) was the other key law of the period.

[4] Decree 2128/1991. Argentines use "$" to signify pesos, but this study uses "$" to signify only dollars.

Tab[redacted]nomic indicators for [redacted]rgentina, 1989-2002 (conc[redacted]

1996	[redacted]	1998	1999	2000	2001	2002	
272	293	299	284	284	269	342	GDP, bn pesos
36.6	[redacted]	36.2	36.6	37.0	36.2	36e	Population, mn
1.00	1.00	1.00	1.00	1.00	1.00	3.36	Pesos per dollar
4.2	6.[redacted]	2.5	-4.6	-1.7	-7.0	-10.8e	Real GDP growth/hea[redacted]%
0.1	0.3	0.7	-1.8	-0.7	-1.5	41.0	Inflation, CPI, %
1.1	-0.8	-6.5	1.1	2[redacted]3	-5.6	125.2	Inflation, PPI, %
12.7	13.1	13.4	13.5	13.5	12.5	12.2e,h	Employment, mn
17.3	13.7	12.4	13.8	14[redacted]7	18.3	23.6i	Unemployment rate, %
27.9	26.0	25.9	26.7	28.9	38.3q,u	57.5v	Poverty rate, %
4.9	9.1	2.2	-6.5	-0[redacted]3	-7.6	-10.6	Industrial production, %
4.03	4.07	4.12	4.16	4.23	4.29	4.60e	Average wage, pesos/hour
24.0	26.4	26.4	23.3	26[redacted]4	26.6	25.4	Goods exports, $bn, FOB
6.6	8.1	7.9	5.7	7.0	6.2	4.7	—to Brazil, $bn
23.8	30.5	31.4	25.5	25[redacted]3	21.0	9.0	Goods imports, $bn, CIF
5.3	6.9	7.1	5.6	6.5	5.3	2.5	—from Brazil, $bn
-8.2	-12.2	-14.5	-11.9	-8[redacted]9	-4.6	9.0	Current account, $bn
11.8	16.8	19.1	15.0	8.6	-13.5	-11.4	Capital account, $bn-g
14.1	16.0	16.4	16.5	15.1	17.8	29.1	Monetary base, bn pesos
16.9	20.8	20.8	22.8	21.9	14.5	10.5	Net FX reserves, $bn
31.2	38.8	41.6	40.4	38.7	25.0	79.8	Peso bank deposits, bn-d
26.4	32.8	39.4	43.2	47.7	44.2	2.2	US$ deposits, bn pesos-d
7.61	8.71	8.44	6.80	11.10	12.78n	16.10	Peso deposit rate, %-t
5.97	7.13	6.85	6.14	8.84	10.09n	1.29	Dollar deposit rate, %-t
10.45	12.33	10.74	13.81	14.80	54.86n	26.75	Peso prime rate, %-k
8.82	8.69	9.31	10.29	13.19	32.78n	None	Dollar prime rate, %-k
42.1	49.1	50.1	48.9	46.1	40.5	39.4	Federal revenue, bn pesos
47.4	53.1	53.9	54.0	52.7	49.0	44.0	—spending, bn pesos
-5.3	-4.0	-3.8	-7.1	-6.6	-8.5	-4.5	—budget bal., bn pesos
97.1	101	112	122	128	144	467	—debt, bn pesos
4.6	5.8	6.7	8.2	9.7	10.2	6.8	—debt service, bn pesos
4.94	4.61	7.07	5.33	7.73	43.72	63.03	—country risk, %
29.1	32.6	33.1	32.3	32.5	30.0	32.2	Provincial rev., bn pesos
30.3	32.7	35.1	36.4	35.9	36.4	34.0	—spending, bn pesos
-1.2	-0.1	-2.0	-4.1	-3.3	-6.4	-1.8	—budget bal., bn pesos
13.9	11.8	13.2	16.6	21.3	30.1	64.3j	—debt, bn pesos
3.1	3.3	3.0	3.0	2.9	2.4	1.5	—debt service, bn pesos
111.4	128.4	141.4	145.3	146.2	165.2	134.3	Total external debt, $bn

Sources: Web sites and publications of Argentina, Instituto Nacional de Estadística y Censo, Ministry of Economy, Centro de Economía Internacional of the Ministerio de Relationes Exteriores, Comercio Internacional y Culto, and Banco Central de la República Argentina; International Monetary Fund, *International Monetary Statistics* CD-ROM; World Bank, *World Development Indicators 2002* CD-ROM; Dal Din and López Isnardi (1998), p. 8 (federal debt, 1990-92) de la Balze (1995), p. 176 (industrial production and country risk, 1989-90); International Labour Office (average wage); J. P. Morgan Emerging Markets Bond Index Plus (country risk, 1994-2002); Joint BIS-IMF-OECD-World Bank Statistics on External Debt (external debt, 2001-02).

use dollars freely, and the country developed a "bimonetary" system in which loans and bank deposits in dollars became widespread.

Reforms in Argentina were faster and deeper than in any country outside the former communist bloc. Table 1 below shows their results. Real GDP per person leaped more than 10 percent a year in 1991 and 1992, before slowing to a more normal rate of above 4 percent in 1993 and 1994. Argentina attracted extensive foreign investment, which helped modernize its utilities, ports, railroads, banks, and other sectors. The major dark cloud of the period was the unemployment rate. From 1989 to 1999, the number of jobs grew as fast as the population, but the number of people who wanted to work grew even faster. Despite some changes, labor laws remained rigid and taxes on formal employment remained high, hampering creation of new jobs in the above-ground economy.[5] Some job seekers went to work in the extensive underground economy, which was more flexible but more precarious. Those conditions persist today.

President Menem made many reforms by emergency decree rather than by the normal, slower process of passing laws through Argentina's Congress. One reason for doing so was that even within Menem's Peronist party, there was strong opposition to many reforms. Some reforms, such as the privatizations of certain government-owned companies, lacked transparency and retained elements of monopoly that benefited entrenched interests.[6] Corruption remained a problem, as it had been since the 1800s, and a number of top officials in president Menem's government were later investigated for their activities. Even so, Argentina made progress in reducing the inefficiency long characteristic of ordinary economic activity in the country. One example is that after the government telephone company was privatized, the average delay for installing new lines fell from months to a few days.

Argentina buffeted by financial [illegible]ts, 1995-1999. Mexico's currency devaluation of December 1994—the so-called tequila crisis—triggered fear that Argentina would devalue, even though economic links between the two countries were slender and Argentina's "convertibility" system differed in important ways from Mexico's monetary system. Interest rates spiked in 1995 until the government allayed fears of devaluation or default by securing a financial package from international financial institutions and private local investors.[7] Argentina suffered a sharp recession in 1995. In its wake, Argentina's federal government strengthened the financial system by closing or privatizing many poorly managed banks owned by provincial governments.

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[5] It was estimated that in the 1980s the combined effect of taxes on imposed a marginal tax rate of 95 percent on income from labor (Scully 1991). The marginal rate fell after tax reforms in 1989, but the basic rate of payroll tax remained high: it was 49 percent both in 1990 and 1998 (International Monetary Fund 2000, p. 24). However, starting in 1994, workers could choose whether to join a new system of private retirement accounts and pay 11 percentage points of wages into personal accounts, or remain in the government social security system and pay a tax of 11 percentage points of wages to it (Law 24.241). On labor market regulation, see also Mondino and Montoya (2000).

[6] See Manzini (2002), pp. 7-9.

[7] For an analysis of the 1995 recession, see Hanke (1999), pp. 348-61.

Growth returned in 1996 and 1997, but in mid 1998 Argentina felt the effects of currency crises in Russia and in Brazil, Argentina's neighbor and largest trading partner. In a milder repeat of the 1995 crisis, interest rates jumped in Argentina. For 30-day loans in pesos, a benchmark indicator, the prime rate (the rate banks charge their best business customers) rose from below 8 percent a year in August 1998 to a high of 19 percent in late September. Argentina's economy went into recession by October.[8] Brazil overcame the 1998 crisis at the cost of economic stagnation, but in January 1999 it allowed its currency to depreciate considerably to restart growth. Brazil suddenly gained some export advantage over Argentina that was amplified within Mercosur,[9] the customs union to which both countries belong. In Argentina, the prime rate in pesos rose to almost 16 percent in January 1999, but by that April it was back below 8 percent, where it had been before Brazil's troubles began.

President Menem expended much effort during his second term in an unsuccessful attempt to change the constitution to allow him to run for a third consecutive term.[10] He tried to gain support for the constitutional change from special interest groups by not making economic reforms that would have benefited the majority of Argentines at some expense to special interests. In consequence, the pace of economic reform slowed. President Menem's government also made an important mistake in 1999 by failing to follow private-sector forecasters in reducing its estimates of tax revenue, even after it became apparent that the estimates were too optimistic.

II. THE CRISIS

Recession and president De [redacted] tax po[redacted]-2001. Fernando De la Rúa became president in December 199[redacted] head of [redacted]r-left Alliance coalition. He had promised to end the recession and [redacted] corruption. [redacted] constituent parties of the Alliance, Frepaso (Frente País Solidario—[redacted]onal Solida[redacted]Front) and De la Rúa's Radical Civic Union, had widely differing id[redacted] about econom[redacted] policy. De la Rúa's vice president, the Frepaso leader Carlos Alvare[redacted] resigned in [redacted]tober 2000 to express frustration with a slow-moving bribery investigation and with economic policy. Table 2, on the next page, lists some important dates for Argentina beginning with president De la Rúa's accession to office.

The De la Rúa government was worried about the federal budget deficit, which was 2.5 percent of GDP in 1999. The government thought reducing the budget deficit would instil confidence in government finances, reducing interest rates and thereby spurring the economy, which was showing signs of recovery in late 1999. Among the options for reducing the deficit, cutting spending was politically difficult; the government

[8] Quarter-over-quarter growth was negative in the third quarter of 1998, while year-over-year growth became negative starting in the fourth quarter.
[9] Mercado Común del Sur, or Southern Common Market.
[10] Constitutional amendments of 1994 changed the term of the president from a single term of six years to a maximum of two consecutive four-year terms. As a transitional measure, president Menem was allowed to serve a four-year term under the new rules in addition to his six-year term under the old rules. After sitting out a term, a former two-term president may run again for two more consecutive terms.

Table [illegible] Important economic events in Argentina since [illegible]	
1999: December 10	Fernando de la Rúa, of the Alliance coalition, succeeds Peronist Carlos Menem as president. Economy in recession since [illegible] 1998. Later in December, new government passes tax increases.
2000: March 10	IMF approves US$7.2 billion stand-by loan to Argentina.
October 6	Vice president Carlos Alvarez resigns, weakening the government.
December 18	IMF leads $40 billion loan package to Argentina.
2001: March	Three economy ministers in three weeks. Alliance coalition breaks up March 18. Domingo Cavallo appointed economy minister March 20, unveils plan March 21 to increase taxes.
April 17	Cavallo introduces bill to link peso to euro and dollar (enacted June 25).
April 25	De la Rúa replaces “hard money” central bank president.
June 3	Debt swap of $29.5 billion.
June 15	Cavallo announces preferential exchange rate for exports.
July 11-26	Bond rating agencies downgrade Argentine govt. debt (also Oct. 9-11).
July 30	Congress passes “zero deficit” law, making more tax increases.
Aug. 21-Sept. 7	IMF increases $14 billion stand-by loan to $22 billion.
October 14	Opposition Peronist party wins midterm congressional elections.
November 1	New measures, including swap for most of $132 billion public debt.
November 30	Overnight interest rates in pesos average 689% on fears of devaluation and deposit freeze. Bank run.
December 1	Cavallo announces bank deposit freeze.
December 5	IMF cuts off lending.
December 13	General strike. Riots and looting follow.
December 19-20	Cavallo and then De la Rúa resign.
December 20-31	Interim presidents Ramón Puerta, Adolfo Rodríguez Saá, and Eduardo Camaño. Rodríguez Saá defaults on foreign debt December 23.
2002: January 1	Peronist Eduardo Duhalde chosen president by Congress.
January 6	Law of Public Emergency and Reform of the Exchange Rate Regime ends “convertibility” monetary system in effect since 1991.
January 9	Peso devalued to 1.40 per dollar for certain transactions, floated for the rest. Bank deposits “pesofied” at 1.40 pesos per dollar, loans at 1.00.
February 11	Foreign exchange market fully reopens; peso falls to around 2 per dollar.
April 22-5	Bank holiday. Economy minister Jorge Remes Lenicov resigns April 23. Congress passes law reinforcing legal basis of deposit freeze April 25.
August-September	Severely depressed economy shows signs of having reached bottom.
November 14	Argentina defaults on debt to World Bank.
December 2	Deposit freeze ends for checking and savings accounts, after having been loosened but not removed for time deposits on October 1.
December 26	Foreign exchange controls relaxed; further relaxed January 8, 2003.
2003: January 17	IMF announces it will renew Argentina’s outstanding loans.
March 5	Argentine Supreme Court nullifies “pesofication” of certain deposits.
May 25	Peronist Nestor Kirchner becomes president following elections.

doubted that cutting tax rates would spur enough growth in the short term to offset lost revenues; it did not wish to abandon the convertibility system and simply print money; and it suspected that financial markets would be unwilling to finance higher debt, though the International Monetary Fund (IMF) did support Argentina with a loan in March 2000.

That left only one option: raising tax rates. President De la Rúa secured approval for three big tax increases, effective January 2000, April 2001, and August 2001.[11] The increases came on top of already high tax rates. The highest rate of personal income tax, 35 percent, was near the level of the United States, but the combined rate of federal payroll tax paid by employer and employee was 32.9 percent, versus 15.3 percent in the United States; the standard rate of value-added tax was 21 percent, versus state sales taxes of 0 to 11 percent in the United States; and Argentina imposed taxes on exports and (from April 2001) on financial transactions, taxes that do not exist the United States. Argentina's high tax rates encourage tax evasion: an estimated 23 percent of the economy is underground and 30 to 50 percent of all transactions evade taxes.[12]

The economy continued to shrink in 2000, although at a slower rate than it had in 1999. Political problems resulted. Minister of economy José Luis Machinea resigned his position on March 9, 2001. His successor, Ricardo López Murphy, proposed to strengthen the finances of Argentina's federal government by cutting spending 4.5 billion pesos over two years—less than 1 percent of GDP a year. The proposed cuts were deeper than any the De la Rúa government had previously considered. They caused public protests by interest groups that would have been affected, and cabinet ministers of the Frepaso party resigned from the coaliti[redacted] government on March 18, 2001 to express their opposition to cuts. López Murphy wa[redacted]en forced out after barely two weeks on the job.

Monetary and debt po[redacted]. President De la Rúa then appointed Domingo Cavallo, the leader of a small p[redacted]arty, as minister of economy. Since quitting as Carlos Menem's minister of econo[redacted] 1996, Cavallo had more than once talked about changing the convertibility system.[redacted]April 17, 2001 he introduced a bill to switch the exchange rate link of the peso from t[redacted]U.S. dollar alone to a 50-50 combination of the dollar and the euro. At the time, the doll[redacted] was at its strongest level in about 15 years, and its strength led Argentine exporters and [redacted]usinesses competing with imports to complain that the peso was too strong. Investors interpreted the proposed switch as a possible step toward devaluation. Short-term interest rates immediately jumped, and a "silent run" on banks began. Also in April 2001, president De la Rúa replaced the independent-minded president of the central bank with a more pliable official.

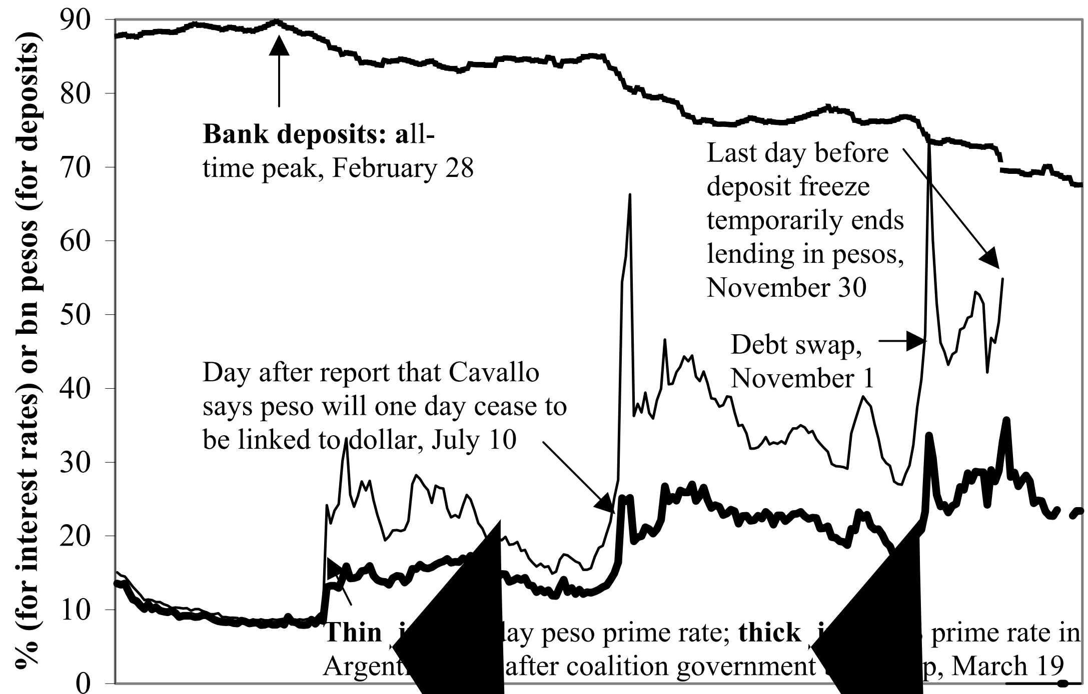
On June 15, Cavallo announced a preferential exchange rate for exports—a type of favoritism contrary to the spirit of the Convertibility Law and to Argentina's

[11] Argentina, Law 25.239, Law 25.413 (the Competitiveness Law), Decree 380/2001, and Decree 969/2001. The other key law of this period was Law 25.453 (the Zero Deficit Law). There had also been some tax increases under president Menem in April 1995, August 1996 and December 1998. The April 2001 package included subsidies intended to offset much of the tax increase.

[12] FIEL (2000), p. 334.

[13] See, for example, Lapper (1999).

Figure 2. Prime rates and bank deposits in 2001



Sources: Banco Central de la República Argentina (interest rates, deposits) ; news reports (events).

agreements with the IMF. On June 21, Argentina's Congress approved switching the exchange rate link of the peso.[14] The law provided that the switch would not happen until the euro, then worth 90 cents, appreciated to $1 (which occurred in July 2002).

In elections of October 14, 2001, discontent about the economy helped the opposition Peronist party win a majority of seats in both houses of Argentina's Congress. Also, the Radical former president Raúl Alfonsín and the Peronist former vice president Eduardo Duhalde won election as senators. Both were outspoken critics of the reforms of the 1990s and personal rivals to president De la Rúa. The election created a political deadlock that further worsened the outlook for Argentina. President De la Rúa was unable to secure approval for legislation he favored, but he would have vetoed bills making many of the changes in economic policy that his successors implemented.

Figure 2 shows three barometers of financial sentiment during 2001: bank deposits in billions of pesos (the upper line), the annualized 30-day prime interest rate for peso loans in percentage points (the thin lower line), and the annualized 30-day prime rate for dollar loans *within Argentina* in percentage points (the thick lower line). Bank deposits trended downward after reaching an all-time peak at the end of February. Interest rates spiked upward on March 19, the first business day after cabinet ministers of

[14] Decree 803/2001; Law 25.445. The preferential rate, which applied to exports other than oil, was a 50-50 combination of the dollar and euro. The government persuaded the IMF that the arrangement was not an impermissible dual rate, but a permissible subsidy and tariff scheme.

the Frepaso party resigned and broke up president De la Rúa's coalition government. After settling down a bit, rates began climbing on June 15, when Cavallo announced the preferential exchange rate for exports; they peaked in mid July, after Cavallo had told a French newspaper that Argentina would one day cease to link the peso to the dollar[15] and international bond rating agencies had downgraded the government's credit rating. Further spikes occurred in early November, when Cavallo announced a series of new measures to combat the government's financial problems, and late November, when people (correctly) feared a freeze of bank deposits. The freeze, imposed on December 1, temporarily ended lending in pesos, although some lending in dollars continued.

The government refinanced much of its debt at higher interest rates on June 3 and November 1, 2001. The debt swaps reduced debt repayments in the short term at the cost of higher repayments later. The swaps were quasi-compulsory for local financial institutions, and loaded them with more government debt, in less liquid form, than they really wanted.[16] The government also secured further loans from the IMF in January and September 2001. The total of about $22 billion that the IMF approved for Argentina in 2000 and 2001 was the largest amount for any country up to that point. (Like most other IMF loans, these loans were disbursed in installments, so Argentina could not borrow all the funds immediately.) The September 2001 loan, announced in August, was especially controversial because Argentina's debt problems were by then so severe that many observers[17] thought a loan would only delay changes in policy necessary to restore economic growth.

The upheavals of December 2001. December 2001 began with a freeze on bank deposits, in response to heavy withdrawals on November 30.[18] The freeze was known in Spanish as the *corralito*, meaning little corral. The economy turned from recession to depression as people and businesses could not make payments. Credit evaporated. Argentines remembered how high inflation had deprived them of the real value of their savings during a similar freeze in 1989 and in a 1982 freeze engineered by Cavallo himself. Many people took to the streets in angry demonstrations (called *cacerolazos,* because people banged casserole pots and pans to make noise).

On December 5 the IMF announced it would cease making further installments of the loan it had approved in September, because Argentina was not fulfilling the targets of the loan agreement. Argentina by now had little chance of receiving loans from any foreign source. A general strike occurred on December 13, and looting and protests on December 19-20 resulted in 24 deaths. Cavallo resigned on December 19 and De la Rúa followed on December 20.

[15] Agence France Presse (2001), summarizing an interview in *La Tribune.*

[16] There was also a refinancing on July 31, 2001 for 1.3 billion pesos. A sale of $2 billion in bonds on April 11, 2001 caused concern because the government let banks count as reserves the bonds they purchased.

[17] Ranging in the United States from the liberal economist Morris Goldstein (2001), a former IMF official, to the conservative economist Charles Calomiris (2001), who has proposed drastic reforms to the IMF.

[18] Decree 1570/2001; Banco Central de la República Argentina, Communication "A" 3372. Regulations initially limited withdrawals to 250 pesos a week. Andrew Powell (2003), who was chief economist of Argentina's central bank from 1996 to 2001, identifies the trigger for the run as the central bank's Communication "A" 3365 of November 26, which limited interest rates on new deposits.

The interregnum of three presidents in less than two weeks was notable for two events. One was the switch of party control of the presidency to the Justicialist (Peronist) party, where it has remained since. The switch occurred because the vice presidency was vacant, so Argentina's Congress, controlled by the Peronists, chose the president. The other big event was president Adolfo Rodríguez Saá's decision of December 23, 2001 to default on the government's $50 billion debt to foreign private-sector lenders. The default was popular within Argentina, [illegible]ut Rodríguez Saá resi[illegible]ned a few days later after his government's blunders in dom[illegible]c policy prompted a [illegible] round of protests.

President Duha[illegible] economic po[illegible]02. To serve the rest of former president De la Rúa's t[illegible]gentina's Cong[illegible]n chose as president Eduardo Duhalde, who had been th[illegible]er-up to De la R[illegible] the 1999 presidential election. From 1991 to 1999, Duhalde [illegible] been the governor o[illegible]enos Aires province, the richest and most populous in the coun[illegible] He was noted as big [illegible]nder.[19]

Before becoming a governor, Duhalde had been Carlos Menem's vice president from 1989 to 1991, but he later broke with Menem and the free-market policies of the 1990s. He assumed the presidency determined to reverse those policies—in particular the convertibility system—because he thought they had caused the recession. For several years, the convertibility system had received growing criticism. The dominant view among economic observers inside and outside Argentina was that the peso's one-to-one exchange rate with the dollar had made the peso overvalued, making Argentine exports uncompetitive and preventing an export-led economic recovery.[20] Staff of the IMF shared this view,[21] which later sections will argue lacked solid supporting evidence. Under the Law of Public Emergency and Reform of the Exchange Rate Regime (January 6, 2002) and related measures,[22] the government:

- Ended the convertibility system, in effect confiscating $14.5 billion of foreign reserves that under the convertibility system were held in trust for the Argentine people and other holders of pesos.

[19] In 1991, the budget of the province was 4.1 billion pesos. Under Duhalde, it rose to 7.9 billion pesos in 1995 and 11.1 billion pesos in 1999, a far higher rate of growth than occurred in the economy or in Argentina's federal budget during the same period (compare with Table 1 above). The deficit of the province, 576 million pesos in 1991, fell to 270 million pesos in 1995 but rose to 1.7 billion pesos in 1999. Figures are from Argentina, Ministry of Economy Web site. The province of Buenos Aires does not include the wealthy city of Buenos Aires, which is a separate administrative unit.

[20] Economists in the United States who supported versions of this view included Ricardo Hausmann (Harvard University's Kennedy School of Government: "A Way Out for Argentina," *Financial Times,* October 30, 2001, p. 23); Paul Krugman (Princeton University: "Crying with Argentina," *New York Times,* January 1, 2002, p. A21); Michael Mussa (Institute for International Economics: "Fantasy in Argentina," *Financial Times,* November 12, 2001); Nouriel Roubini (2002) (New York University); and John Williamson (Institute for International Economics: Bill Hieronymous, "IIE's John Williamson Comments on Argentina's Financial Crisis," Bloomberg news wire, December 31, 2001). Economists whose ideas support the opposing view proposed by this study include Hanke (2000), Kiguel (2002), Powell (2003), and to some extent Calomiris (2000, p. 14).

[21] See Faiola (2002).

[22] Argentina, Law 25.561; Decrees 71/2002, 214/2002, and 471/2002; Ministry of Economy, Resolutions 6/2002 and 11/2002; Banco Central de la República Argentina, Communications "A" 3661 and 3722.

- Devalued the peso to from the previous rate of 1 per dollar to 1.40 per dollar, and later floated the exchange rate, allowing further depreciation.
- Forcibly converted dollar bank deposits and loans into pesos ("pesofication"). Deposits were converted at 1.40 pesos per dollar; loans, at 1 peso per dollar. Interest rates were frozen at predevaluation levels. Since the market exchange rate was 2 pesos per dollar at the time, the cost to bank depositors was about $23 billion; the net cost to banks from devaluing loans more than deposits was a further $12 billion.[23]
- Forcibly prolonged time deposits. (The Spanish name for this measure is the *corralón,* or big corral, to distinguish it from the earlier *corralito.*)
- "Pesofied" contracts in dollars at 1 peso per dollar, with large though unquantified costs for creditors.
- Seized the dollar reserves of banks, costing them about $1.6 billion.
- Imposed exchange controls (restrictions on buying foreign currencies).
- Suspended bankruptcy proceedings.
- Doubled penalties for employers who laid off employees.
- Established a variety of new taxes and regulations, introduced in uncoordinated fashion and frequently revised.

In addition to these policies, the Duhalde government tried to enact, or enacted and then reversed, others just as sweeping. For example, the government sought but failed to obtain the support of Argentina's Congress for a forced conversion of many bank deposits into government bonds. Minister of economy Jorge Remes Lenicov resigned on April 23, 2003 after it became clear that the Congress would not pass the bill. The government also enacted certain bankruptcy provisions that would have given creditors a free ride, but reversed the provisions under pressure from the IMF.[24]

The Duhalde government's policies reversed the often erratic but persistent trend of the previous quarter-century toward less government direction of the economy, greater respect for property rights, and more predictable policies. The government took tens of billions of dollars of wealth from the public, and transferred tens of billions more from some groups among the public to others—notably from creditors to debtors. (Such transfers do not seem to have made the distribution of wealth more equal. Individual bank depositors, who are generally from the middle class, saw the real value of their savings fall in dollar terms, while many wealthy people and corporations that borrowed from banks benefited. Poor people in Argentina typically neither have bank deposits nor owe bank loans.)

[23] Law 25.713 of November 28, 2002 indexed interest rates for inflation starting February 3, 2003, but lenders received no compensation for inflation that occurred while interest rates were frozen. When the last phase of unfreezing deposits began in April 2003, at the range of exchange rates then existing, depositors in dollars could recover 80 to 85 percent of the original value of their deposits. By this measure, the net cost of pesofication to depositors was roughly $9 billion.

[24] Laws 25.563, 25.589, and 25.640. Dawson (2002) alludes to the pressure the IMF exerted, which in this case was beneficial because it prevented further erosion of long-established property rights that promote prosperity.

Articles 14 and 17 of Argentina's constitution guarantee the right to private property and require the government to compensate property owners for takings. On March 5, 2003, Argentina's Supreme Court ruled in a landmark case that the pesofication of a bank deposit had been unconstitutional. The Duhalde government stated that it would not try to craft a re[redacted]ponse to the court'[redacted] ruling that is both leg[redacted]lly and economically sound; rather, it le[redacted]e task to its succe[redacted]r, which took office o[redacted]ay 25, 2003.

Resu[redacted]e new po[redacted]d current out[redacted]02-2003. Argentina's economy shr[redacted] percent in[redacted]and a further [redacted]rcent in 2002. The unemployment [redacted]se to 23.6 per[redacted]7.8 percent if one[redacted]s as employed people working in emerg[redacted]y government r[redacted] programs). In 2002[redacted]l (inflation-adjusted) wages fell 23.7 per[redacted]t, real supermark[redacted]sales fell 26 percent, s[redacted]s of new automobiles fell 53.4 percent, and[redacted]onstruction activity[redacted]fell 28.1 percent. The pr[redacted]portion of Argentines below the officially defined poverty line jumped from 38.3 percent in October 2001 to 57.5 percent a year later.[25] It is estimated that about 40 percent of Argentines live on $1 or less a day, and a further 20 percent on $1 to $2 a day. Malnutrition has become a problem: 18 children died of it during 2002 in the northwestern province of Tucumán.[26]

Bankruptcies reached record levels in 2002. A wave of defaults or liquidity problems at some of Argentina's largest companies began in March 2002, though it has since spent its force. Among the companies affected were the utilities Metrogas, Telecom Argentina, and Aguas Argentinas, plus Argentina's largest locally owned private-sector bank, Banco Galicia. Foreign banks and utility companies operating in Argentina experienced large losses related to the Duhalde government's economic policies. They included the U.S. banks Bank of America, Citigroup, FleetBoston Financial, and J. P. Morgan Chase & Co., as well as the utility companies AES Corporation, CMS Energy, Public Service Enterprise Group (PSEG), and Sempra Energy.[27] Companies from Spain, Italy, France, and Brazil were also affected. Banks suffered from the asymmetric way the government enacted pesofication. Converting bank liabilities from dollars into pesos at a 1.40 pesos per dollar, while converting assets at only 1 peso per dollar, wiped out much of banks' capital. The Canadian-owned Scotiabank Quilmes, the French-owned Crédit Agricole, and the Italian-owned IntesaBci left Argentina rather than inject more capital to compensate depositors for the losses the government had inflicted.[28] Utility companies suffered from the pesofication of contracts that had been denominated in dollars. Utilities

[25] Statistics are from Argentina, Instituto Nacional de Estadística y Censo, except for automobile sales, which are from the Asociación de Fábricas de Automotores. The government collects statistics on poverty twice a year, in May and October.

[26] Bermúdez (2003), *Clarín* (2002).

[27] Corporate 10-K and 10-Q forms filed with the Securities and Exchange Commission detail the following losses from operations in Argentina: Bank of America, $267 million in 2002; Citigroup, $235 million in 2001 and $1.704 billion in 2002; FleetBoston Financial, $1.1 billion in 2001 and $1.3 billion in 2002; J. P. Morgan Chase & Co., $140 million in 2001 and no more than $100 million in the first nine months of 2002; AES Corporation, $134 million in the first nine months of 2002; CMS Energy, $430 million in the first nine months of 2002; Public Service Enterprise Group (PSEG), $623 million in 2002; and Sempra Energy, $155 million in 2001 and $223 million in 2002. Except for AES Corporation, all losses are before taxes.

[28] The government has offered banks some compensation in the form of government bonds, which at present can only be sold at a large discount; see Decrees 905/2002 and 2167/2002.

had brought equipment from abroad to expand Argentina's telephone, electrical, gas, water, and sewer systems. They had paid for the equipment in dollars or other foreign currencies, perhaps on credit. They were counting on recovering their investment from the increased revenue generated by more users. Contracts with the government specified that utilities could set prices in dollars, as security against depreciation of the peso. The Duhalde government voided the contracts.

An economic recovery began about August 2002.[29] It was initially fragile, but has since gained strength. The exchange rate, which depreciated to almost 4 pesos per dollar in mid 2002, is about 2.90 pesos per dollar as of early June 2003. In 2002, inflation in consumer prices was 41 percent. The rate of inflation was much lower than the rate of depreciation of the peso partly because the economy was so depressed that sellers could not raise prices without losing sales, and partly because utilities are subject to price controls. The producer price index, which has fewer goods subject to price controls, rose 125.2 percent. Still, unlike the last severe bout of currency depreciation, in 1989, inflation did not spin out of control. In 2003, inflation in consumer prices may be in single digits. Many sectors now are expanding production. On December 2, 2002 the government removed the *corralito,* the part of the freeze on bank deposits that applied to checking and savings accounts. At the end of 2002, total peso bank deposits were 66.5 billion pesos, of which 43 billion pesos were frozen. (In addition, there were $872 million in dollar deposits.) The government partly relaxed the *corralón,* the part of the freeze applying to time deposits, on January 15, 2003, and ended it on April 1.[30]

As will be discussed later, on November 14, 2002, Argentina defaulted on a loan from the World Bank. It also threatened to default on loans from the IMF due for repayment starting January 17, 2003, and on loans from the Inter-American Development Bank. The IMF renewed lending to Argentina to prevent an official default.

President de la Rúa's original term was to have run until December 2003, but on July 2, 2002, he announced he would resign on May 25, 2003 and not run for a second term. Duhalde changed the rules of his Peronist party so as to eliminate its primary election, in which his rival, former president Carlos Menem, stood a good chance of victory. Three Peronist candidates went straight to the general election of April 27. The top two vote-getters among all candidates were Menem and Nestor Kirchner, the Peronist governor of the southern province of Santa Cruz. They were to face each other in runoff on May 18, but on May 14, Menem announced that he would withdraw from the race because polls showed him far Kirchner. (Despite strong support from a large minority of voters, Menem had consistently high negative ratings from an even larger group who thought he deserved much of the blame for the economic crisis.) Nestor Kirchner became president on May 25.

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[29] On a quarter-over-quarter basis the economy began growing in the second quarter of 2003, but on a year-over-year basis it shrank every quarter of 2002. Preliminary estimates are that in the first quarter of 2003, the economy grew 2.4 percent on a quarter-over-quarter basis and 5.2 percent on a year-over-year basis.

[30] Ministry of Economy, Resolutions 6/2002, 668/2002, and 236/2003; Banco Central de la República Argentina, Communication "A" 3827; Argentina, Decree 739/2003.

Menem would have returned to policies similar to those of the 1990s, whereas Kirchner favors the policies of an earlier era, which Menem overturned. Their divergent views reflect an underlying feature of Argentine society: no consensus exists about what kind of economic system Argentina should have. At various times the system has been a business oligarchy; fascist; mercantilist; populist; and more or less capitalist. Currents of all those systems and of socialism are present in the political system today. Systems that have failed in Argentina and elsewhere continue to have pockets of strong support among the public and politicians. Argentina has long had trouble choosing and adhering to consistent economic policies. Its difficulties are reflected in the frequent changes of top officials responsible for economic policy.[31]

III. WHAT DID NOT CAUSE THE CRISIS

There are several major competing explanations for Argentina's crisis. This study considers the crisis from an economic perspective—what economic policies Argentina's government followed and what it could have done differently in the last several years. It is also possible to consider the crisis from a longer political perspective that considers what underlying political or social forces have prevented Argentina from continuing the success in economic development it had a century ago. Among the explanations for the crisis that have achieved some popularity are those that blame corruption; the failure of market-oriented economic policies; Argentina's supposed currency board monetary system; the overvaluation of the Argentine peso; or lack of budgetary discipline at the national or provincial level. These explanations all locate the policies most responsible for the crisis as originating in the mid 1990s or before. All fail to explain key facts.

Corruption. Many Argentines and some foreign observers view the crisis as representing the collapse of a corrupt political and economic culture. The privatizations of the Menem years reduced some obvious signs of corruption; for example, it ceased to be necessary to bribe employees of the telephone company to install new lines or repair old ones quickly. Other kinds of corruption remained, though, and the Corruption Perceptions Index developed by Transparency International has ranked Argentina in the bottom half of all countries surveyed ever since the organization's first report in 1995. In 2002, Argentina was 70th of 102 countries, and its score was the lowest ever.

Argentines and foreigners alike have complained about pervasive corruption since the 1800s.[32] The corruption of the 1990s does not seem unusually high by historical standards. And rather than moving in the same direction, as one might expect,

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31 Since Argentina got its first president in 1852, it has had 58 presidents or military juntas, versus 30 presidents of the United States in the same period (through early June 2003). Argentina has had 119 ministers of economy since the post was created in 1854, versus 53 secretaries of the U.S. Treasury in the same period. The central bank, created in 1935, has had 54 presidents, versus 7 governors of the U.S. Federal Reserve System in the same period. From early January 2001 to early June 2003, Argentina had six presidents, eight ministers of economy, and five presidents of the central bank; for the corresponding posts in the United States, the numbers were one, two, and one.

32 An English observer writing in 1899 remarked, "Argentina is one of the most unfortunate victims of parliamenteering run wild. It is not governed by administrators, but by professional politicians. Everything in its national life, whether industrial, commercial, or financial, begins and ends in Politics." Quoted in Ford (1962), p. 90.

transparency and economic growth have moved in opposite directions every year except 2002.[33] That does not mean transparency is bad and corruption is good for Argentina's economy, but it does suggest that corruption was not the main cause or even a secondary cause of the crisis.

fai[illegible] free markets. The crisis has also been blamed as the result of introducing free-market economic policies too fast, widely, and rigidly. In the 1990s, Argentina was [illegible]ed as a star pupil of the "Washington consensus" of reforms promoted by the IMF, World Bank, and U.S. government. The Washington consensus reflected mainstream economic thinking in advocating monetary and budgetary discipline, a broad range of deregulatory measures, and privatization of many government activities. Critics of the consensus have dubbed it, or their exaggerated version of it, "market fundamentalism" or "neoliberalism" (from the 19th-century sense of "liberal" still common in Latin America, meaning in favor of limited government).[34]

Critics have claimed that Argentina's crisis shows Argentina needs a frankly interventionist approach to economic policy. Among the measures many favor are retaining the exchange controls (restrictions on buying foreign currency) that Argentina eliminated under the convertibility system and has now reinstated; renationalizing former government enterprises that were privatized but are now encountering problems; restricting foreign investment and foreign ownership of Argentine companies; and using government-owned banks aggressively to direct credit to priority sectors of the economy.

Argentina has already tried such an approach, though. From the 1930s to the 1980s the government was highly interventionist, with occasional failed attempts at lasting liberalization. Much of the government's approach to intervention was based on the ideas of the internationally influential Argentine economist Raúl Prebisch (1901-1986). The government owned banks, the railroad system, the electrical grid, the telephone company, the oil company, and many other enterprises. It set interest rates, tightly regulated the buying and selling of foreign currency, and controlled the prices of many goods. Argentina had a version of central planning, though not so comprehensive or brutal as in the communist bloc. The results were low growth and frequent monetary problems, culminating in the hyperinflation of 1989-1990. Argentina's fastest growth in recent years was during the early 1990s, the period of fastest liberalization. Growth slowed, stopped, and reversed as liberalization slowed, stopped, and reversed.

The "currency board." Still another explanation of the crisis faults Argentina's convertibility system, which was supposedly a currency board. The convertibility system maintained a pegged exchange rate of one peso per dollar. The peso supposedly became overvalued because, converted into dollars, prices in Argentina rose faster than prices in

[33] Transparency International (2002). Another indicator, the Opacity Index (2001), ranked Argentina 18th of 35 countries surveyed. For more on corruption, see Manzini (2002) and Organization of American States (2003).

[34] For a summary of the Washington consensus and what the originator of the term thinks about it now, see Williamson (2000). Joseph Stiglitz (2002), winner of the 2001 Nobel memorial prize in economics, is the most prominent critic of the Washington consensus; for a criticism by Argentines, see Universidad de Buenos Aires (2001).

the United States and in Argentina's neighbors, notably Brazil. After Brazil devalued in 1999, the convertibility system prevented Argentina from devaluing to remain competitive; to end its recession, Argentina supposedly had to take the slower, more painful, and politically harder path of cutting wages. Ultimately that proved impossible, so Argentina had to devalue the peso.[35] The key questions about this explanation are whether the convertibility system of April 1991 to January 2002 was really a currency board, and whether the peso was in fact overvalued.

Many observers, and even some Argentine government officials, called the convertibility system a currency board.[36] Yet it was not an orthodox currency board; rather, it was a mixture of central banking and currency board features, perhaps best termed a currency board-like system. Argentina never established a separate body to act as a currency board, nor did it establish a separate division within its central bank or even a separate balance sheet. Instead, the central bank retained its previous organizational structure, but was subjected to a few new rules.

The major characteristics of an orthodox currency board are (1) a fixed exchange rate with an anchor currency; (2) no restrictions on exchanging (converting) currency board currency into the anchor currency at that exchange rate, nor discriminatory exchange rates; and (3) net foreign reserves equal to 100 percent or slightly more of the currency board's liabilities of a monetary nature. Together, these characteristics imply that an orthodox currency board has no room for independent monetary policy. The convertibility system at times lacked one, two, or all three characteristics of an orthodox currency board, hence Argentina's central bank retained considerable discretionary powers. To be specific:

(1) The law established a selling rate but no buying rate for the peso in terms of the dollar; in principle the central bank could have made the peso appreciate, though in practice it did not.[37]

(2) In June 2001, Argentina established a preferential exchange rate available only to exporters.[38] The discriminatory rate lasted until the convertibility system ended in January 2002. The central bank decided who qualified for the preferential rate.

(3) Table 3, on the next page, shows that by whatever definition of foreign reserves to central bank liabilities one uses, under the convertibility system the ratio was often far from 100 percent.[39] The Convertibility Law set no minimum or maximum ratio of foreign reserves to monetary liabilities, although it required "freely available reserves," valued at market prices, to be equal to at least 100 percent of the monetary

[35] Footnote 20 above lists some economists who supported more or less this explanation of the crisis.
[36] For example, Pedro Pou (2001, p. 73), president of the central bank at the time he made his remarks.
[37] Law 23.928, article 1.
[38] Decree 803/2001.
[39] The main reason the ratio sometimes far exceeded 100 percent was that besides holding reserves against monetary liabilities, the central bank was also the custodian for flows of foreign currency having no direct connection with the supply of money, such as loans from the IMF and government payments to foreign creditors.

Tab[redacted]tra[redacted]serve ratios under the convertibi[redacted]m

		[redacted]Low / high net foreign reserves as a percen[redacted]		
		[redacted]etary base	*Monetary liabilities*	*Finan[redacted]bilities*
From	[redacted]1-a	[redacted]7-b / 55.8		
monthly	1[redacted]2	5[redacted]-b / 104.2		
averages	19[redacted]3	92[redacted]9 / 109.7	no data	no da[redacted]a
of daily	1994	91.5 / 102.7		
figures	1995	94.1 / 122.5		
	1996	116.0 / 139.3	110.0 / 140.1	89.0 / 96.3
From	1997	128.3 / 149.9	127.4 / 149.4	93.2 / 100.8
daily	1998	136.7 / 171.2	140.1 / 171.1	99.7 / 103.2
figures	1999	153.0 / 178.4	152.8 / 178.2	98.8 / 100.8
	2000	155.7 / 195.4	154.7 / 191.1	99.8 / 102.4
	2001	109.1 / 193.1	81.7 / 193.0	94.8 / 131.5

Notes: a = figures for 1991 start with April, when the convertibility system began; b = *gross* reserves were near or above 100 percent from the beginning of the convertibility system. Net foreign reserves exclude the central bank's holdings of Argentine government bonds denominated in foreign currencies, because the net value of the bonds is zero in the consolidated balance sheet of the central bank plus the rest of the government. The monetary base is central bank notes and coins in circulation plus demand deposits of commercial banks at the central bank; monetary liabilities are the monetary base plus net repurchase (repo) operations; financial liabilities are monetary liabilities plus other short-term liabilities, such as government deposits.

Sources: Banco Central de la República Argentina, *Statistical Bulletin of the Central Bank of the Argentine Republic,* <http://www.bcra.gov.ar/english/estadistica/estad000100.asp>, "Monetary and Financial Framework," column V divided by column W (for 1991-1995 data), and "Daily Data on the BCRA's Financial Liabilities and International Reserves," column F divided by columns K, J, and I (for 1996-2001 data).

base, which it defined as central bank notes and coins in circulation plus demand deposits of commercial banks at the central bank. The Convertibility Law allowed the central bank to count Argentine government bonds payable in gold or foreign currency as satisfying the reserve requirement. The 1991 budget law, however, set the minimum ratio of reserves excluding Argentine government bonds at 90 percent.[40] A revised law of the central bank, passed in 1992, stated that during the first three years of the operation of the law, the normal minimum ratio would be 80 percent, but the central bank could declare a 90-day emergency period during which it could reduce the ratio to 66⅔ percent. The central bank never used the provision. After three years, the law provided for the minimum ratio to be 66⅔ percent in all circumstances. Separately, the law forbade the central bank from increasing its holdings of Argentine government bonds by more than 10 percent over the average of the previous year.[41]

Because the reserve ratio of central bank was often far from 100 percent, under the convertibility system the exchange rate of the peso was intermediate (pegged) rather than fixed. An orthodox currency board maintains a fixed exchange rate, under which it

[40] Law 23.990, article 37, partly promulgated on September 16, 1991.
[41] Law 24.144, Article 1, (sub)articles 20, 33, and 60.

sets the rate, but lets market demand determine the amount of the monetary base it supplies at that rate. At the other extreme, a few central banks, including the U.S. Federal Reserve System, have "clean" floating exchange rates, under which they set the amount of the monetary base, but let market demand determine exchange rates. In intermediate (pegged) exchange arrangements, such as the convertibility system, central banks try to set both the exchange rate and the amount of the monetary base—a practice called sterilized intervention. There are times when a target for the monetary base can conflict with a target for the exchange rate. The result can be a currency crisis.[42]

Analysis of the historical performance of currency board systems worldwide strongly suggests that the convertibility system broke down not because of its currency board features, but because of the central banking features that an orthodox currency board would not have had. Argentina is the only place where a currency board or currency board-like system has ever ended in devaluation, out of about 80 countries that have had such systems. During the existence of the convertibility system, a few observers warned that its central banking features were a potential source of trouble. They proposed converting the system into an orthodox currency board or even replacing the peso with the dollar. They based their analysis on ideas from economic theory about differences in the way the money supply works under different kinds of monetary systems.[43]

Despite the flaws the convertibility system had, it was more durable and resilient than any monetary policy Argentina has since before the Second World War. The system was only more a transmitter than an absorber of shocks during periods when the government created fear that it would change the system and revert to the instability characteristic of other monetary policies as they have worked in Argentina.

An overvalued peso. Particularly after Brazil's devaluation of January 1999, it was often claimed that the Argentine peso was overvalued. Table 4, on the next page, summarizes ways of defining and measuring overvaluation, which we will now consider.

Many economically minded visitors to Buenos Aires during the period of the convertibility system took high prices as evidence the peso was overvalued. Buenos Aires was expensive for tourists. It was less expensive for natives, because they took the $1.30 bus rather than the $35 taxicab ride from the airport (which is about 20 miles from the city center); ate in modest neighborhood restaurants rather than nationally known establishments; and lived in outlying areas rather than staying in hotels downtown. Some

[42] For a more detailed explanation, see Joint Economic Committee (2002a). Economists still lack a generally agreed set of terms and classifications for exchange rates, which helps explain why many who have written about the convertibility system have misunderstood its workings. To use an analogy that may be helpful to readers familiar with intermediate economics, a central bank that practices sterilized intervention is like a monopolist that sets both the price and quantity of the good it sells. Unless it somehow already knows where the demand curve lies, it must experiment to find the curve. While experimenting, should it supply either too much or too little of the good it sells, neither the price nor the quantity can adjust to bring the amount consumers demand into balance with the supply. Hanke (2002, pp. 207, 210) makes other calculations that show the extent to which Argentina's central bank engaged in sterlilized intervention.

[43] Hanke (1991); Hanke and others (1993), pp. 72-7; Hanke and Schuler (1991, 1999); Schuler (1999).

Tab[redacted] the peso overva[redacted]er the convertibi[redacted]m?	
Indicato[redacted]sting overvaluation	*[redacted]dicators suggesting no [redacted]uation*
Casual imp[redacted]ons of high costs of taxi[redacted] hotels, and re[redacted]urant meals for tourists	[redacted]rgentines spent differentl[redacted]n tourists; [redacted]xis costlier in Rio de Janeir[redacted]
Some calculati[redacted]s of living costs in Buenos Aires compared to other cities	[redacted]ther calculations of such [redacted]costs (for example, *Economist* Big Mac Index)
Trade and current-account deficits during most of convertibility system	Consistent though modest growth in exports; trade surpluses in 2000 and 2001
Bilateral real exchange rate with United States based on consumer prices	Bilateral real exchange rate with United States based on producer prices
Multilateral real effective exchange rate based on consumer prices	Multilateral real effective exchange rate adjusted for unit labor productivity
Some models of fundamental equilibrium real exchange rate or other such constructs	Other models
	Ability of central bank to pay dollars for pesos (until at least December 2001)

comparisons of living costs in big cities around the world suggested that Buenos Aires was unusually expensive given Argentina's standard of living, while others did not.[44] For example, in 2000 taxis were 8 percent more expensive per mile in Rio de Janeiro than in Buenos Aires. And the *Economist* magazine's tongue-in-cheek Big Mac index, which compares the prices of McDonald's hamburgers around the world, suggested that the peso was 2 percent *undervalued* relative to the dollar in early 2001.

For much of the life of the convertibility system, Argentina had deficits in its trade account and current account. A country's trade account is imports minus exports of goods; its current account is net trade in goods (the trade account), plus net trade in services, plus net current transfers such as interest payments made or received. Some observers took the deficits as indications that the Argentine exporters were uncompetitive because the peso was overvalued. However, exports grew every year of the convertibility system except 1991, when the system was not in effect the full year, and 1999, when Brazil's devaluation had a significant but temporary effect. Growth in exports was not limited to commodities; exports of manufactured goods also increased.[45] As Table 1

[44] Because of different weighting criteria, the Economist Intelligence Unit ranked Buenos Aires the 18th most expensive of 133 cities in 2000, while the Swiss bank UBS (2000, p. 6) ranked it 22nd of 58 cities.

[45] *Total* exports grew from $12.4 billion in 1990, the last full year before the convertibility system, to $26.6 billion in 2001, the last full year of the convertibility system. The growth of exports under the system was therefore about 115 percent. In the preceding period of equal length, 1979 to 1990, total exports grew from $7.8 billion to $12.4 billion, or about 60 percent. *Industrial* exports grew from $3.4 billion in 1990 to $8.3 billion in 2001, or 8.5 percent a year. In the preceding period 1980 (when online statistics start) to 1990, industrial exports grew from $1.5 billion to $3.4 billion, or 8 percent a year. Statistics are from Argentina, Instituto Nacional de Estadística y Censo. Adjusting the figures for inflation, the performance of the convertibility period is even more impressive. Inflation in the dollar, as measured by

above showed, Argentina maintained a trade surplus with Brazil even after Brazil's 1999 currency devaluation. On the other hand, Argentina's 2002 devaluation led to large trade and current-account surpluses, but exports *fell* 4.5 percent because of government policies that dried up credit for exporters, and for everyone else.

A less casual way of trying to measure whether a currency is overvalued is by calculating the real exchange rate. The real exchange rate converts prices in different countries into a common currency by using the going exchange rate. So, if Brazil's currency depreciates from 1.50 per Argentine peso to 3 per peso but Brazilian prices double in the same period, in terms of pesos, prices are the same, and the real exchange rate is unchanged. A natural place to begin such comparisons is with the United States, since the convertibility system pegged the peso to the dollar. Let us rebase Argentina's consumer price index to 100 percent of the U.S. index in March 1991, which is just before the convertibility system began on April 1, 1991. During the convertibility system, Argentina's index was always above the U.S. level, peaking at 144 percent in January 1995; in December 2001 it was still 120 percent of the U.S. level. These figures suggest that the peso was persistently overvalued against the dollar. However, using *producer* price indexes, Argentina's index peaked in April-May 1996 at only 114 percent of the U.S. level; it fell below 100 percent starting December 2000, and in December 2001 it was 96 percent of the U.S. level. These figures suggest no persistent overvaluation.[46]

Figure 3, on the next page, shows the multilateral real exchange rate for Argentina from 1980 to 2002. Instead of comparing Argentina to just one other country, such as the United States, the multilateral rate compares Argentina to a basket (group) of other countries, with the weight of each country in the basket being determined by how important it is in Argentina's international trade or finance. There are different ways to calculate multilateral real exchange rates. Figure 2 shows calculations published by the Argentine government based on producer price indexes (the thick line) and consumer price indexes (the thin line). The reference point of 100 is again March 1991.

Real exchange rates were less volatile during the convertibility system (April 1991 to December 2001) than during the previous period (January 1980, when statistics start, to March 1991). The convertibility system made Argentina's nominal exchange rate and inflation more stable. During both periods, the measure of the real exchange rate based on consumer prices was more volatile than the measure based on producer prices.[47] Consumer price indexes include more nontradable goods such as rent and utilities, which experience changes in price not shared with the rest of the world.

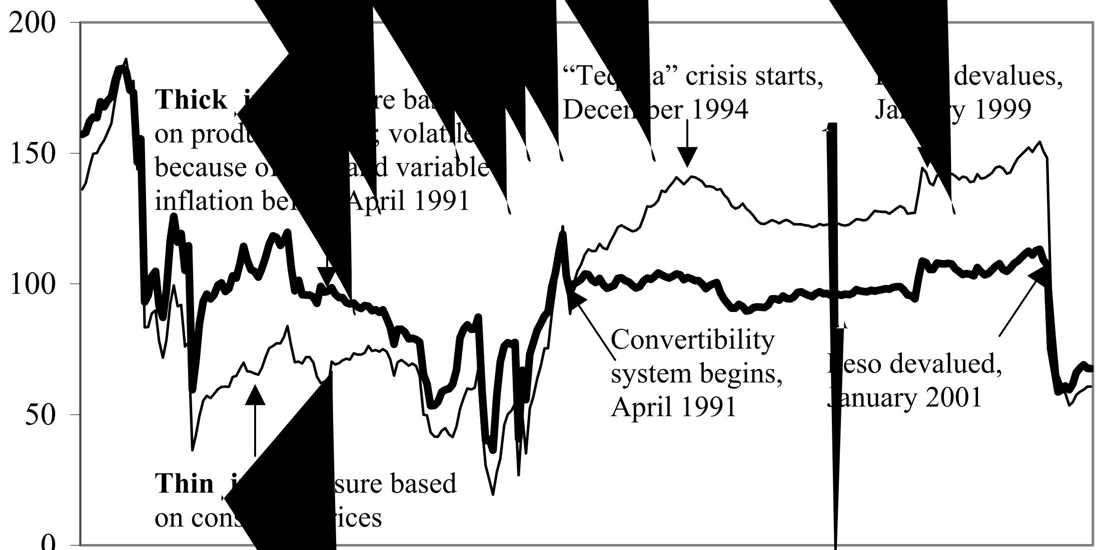
The period averages of real exchange rates based on producer prices were very close: 99 before the convertibility system, 100 during the convertibility system. During

the U.S. producer price index for finished goods, was 71 percent from the start of 1979 to the end of 1990, but just 18 percent from the start of 1991 to the end of 2001.

[46] For the United States, the consumer price index is the index for all urban consumers (the CPI-U) and the producer price index is the index for finished goods (WPUSOP3000).

[47] The standard deviations for consumer prices are 35.80 for January 1980-March 1991 and 10.54 for April 1991-December 2001; for producer prices they are 32.05 for January 1980-March 1991 and 5.47 for April 1991-December 2001.

Figure 3. Rea ge rates for rgen na, 1980-200 her numbers sig "overva ify "underva



Source: Figures fr entro de Economía Internacional, Ministerio de Relationes Exteriores, Comercio Internaci y Culto. For clarity, figures have been inverted and rebased.

the convertibility system, the highest level this measure reached was 113, in October 2001—far below the previous period's high of 182 in November-December 1982. For gauging the effect of the real exchange rate on the competitiveness of exporters, the measure based on producer prices is presumably more relevant than the measure based on consumer prices, since exporters are producers. The measure based on producer prices shows at most only mild overvaluation compared to the reference point of March 1991. The question then arises whether the exchange rate was already overvalued in March 1991. There seems to be nobody who thinks it was.

The period averages of real exchange rates based on *consumer* prices were far apart: 78 before the convertibility system, 131 during the convertibility system. Within a year after the convertibility system began, this measure rose from 100 to above 120; it peaked at 154 in October 2001. Some critics of the convertibility system thought the rapid rise in consumer prices indicated lack of competitiveness in nontradable goods.[48] If that was the case, the proper remedy would have been to attack the problem directly by reducing tax rates and regulatory obstacles to efficiency. For example, the value added tax rose in steps from a low of 13 percent in 1990 to 21 percent in April 1995.[49]

Turning to another figure, the next page reproduces a graph from a May 2001 country report on Argentina by the IMF. The graph, which begins in 1993, shows the

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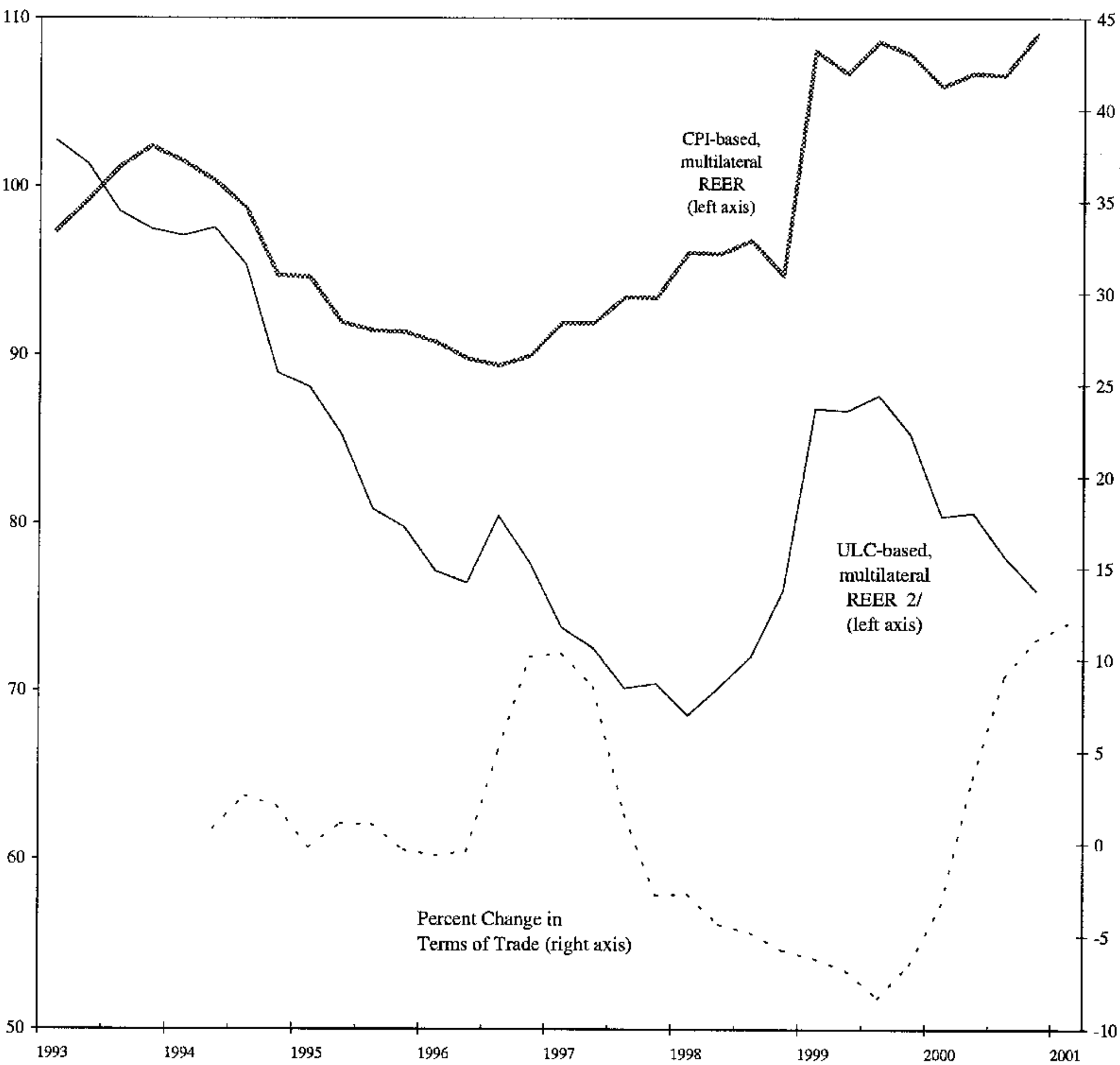
48 Lascano (2001), pp. 12-13.
49 For a summary, see title 9 in the updated version of Decree 280/1997.

Figure 5. Argentina: Real Effective Exchange Rates (REER),1/
and Terms of Trade
(1993=100)



Sources: Ministry of Economy; IBGE; IMF Information Notice System; and Fund staff estimates.
1/ A rise in the real effective exchange rate index indicates real appreciation.
2/ Real effective exchange rate vis-à-vis selected developed countries and Brazil.

multilateral real effective exchange rate (REER) based on consumer price indexes (CPI) alone, like the similar line in Figure 2. The graph also shows data from another method of calculating the real exchange rate, which adjusts for changes in unit labor costs (ULC).[50] Because labor productivity rose faster than wages, this second measure shows fell substantially since 1993, except for a reversal approximately centered on Brazil's January 1999 currency devaluation. (The graph also shows a calculation of the terms of trade, which compares prices of exports against prices of imports. The graph indicates that changes in the terms of trade were mildly positive overall, meaning that over time, Argentina could buy slightly more imports with the same amount of exports.)

Yet another way of trying to measure overvaluation is through economic models that estimate whether a country's foreign-exchange earnings will be sufficient to pay its foreign debt, or whether the inflows of foreign capital a country can plausibly attract will be sufficient to finance continuing deficits in the current-account portion of its balance of payments. When the models indicate insufficient foreign-exchange earnings or inflows of capital, economists often interpret the results as indicating that the currency should be devalued. However, another possibility is that the government should restructure its foreign debt, and not all models of this type for Argentina indicated an overvalued currency or excessive foreign debt.[51]

In summary, the evidence from various calculations and models that try to measure overvaluation is mixed. Besides those procedures, though, there is a simpler way of measuring overvaluation, which is to observe whether a central bank, currency board, or other monetary authority maintaining a pegged or fixed exchange rate with a foreign currency honors all demands to exchange local currency for the foreign currency. An orthodox currency board never has an overvalued currency in this sense, because it always keeps net reserves of 100 percent or slightly more of its monetary liabilities. Under the convertibility system, Argentina's central bank allowed people to exchange pesos for dollars freely until December 2001, which not by coincidence was when its ratio of net foreign reserves to monetary liabilities fell below 100 percent. (The preferential exchange r[redacted]te offered to exporters beginning Ju[redacted] 2001 was a discriminatory exchange rate, but n[redacted]general restriction on exchanging [redacted]s for dollars.)

Federa[redacted]s that seemed unsustainab[redacted] the recession. Table 5, on the next page, [redacted]s data on the finances of [redacted]a's federal and provincial governments, and[redacted]comparison, data on the U.S.[redacted]al and state governments. (Municipal spendin[redacted]d debt, omitted from the table ex[redacted]for the autonomous city of Buenos Aires, are ins[redacted]ificant compared to federal and p[redacted]vincial spending and debt.) Argentina had defaulte[redacted] on its foreign debt during the La[redacted]n American debt crisis of 1982; ten years later it was still in default and hence unable to borrow in international financial markets. In April 1992, it agreed to a plan for restructuring its debt; it began to

[50] International Monetary Fund (2001), p. 10. Copyright 2001 by the IMF; reproduced by permission. There seems to be no long series of consistent statistics of unit labor costs in Argentina. Unpublished calculations by Buscaglia (2002) indicate that unit labor costs increased 21 percent from March 1991 to December 1992, and peaked in February 1993 at 39 percent above their level of March 1991.

[51] Compare Calvo and others (2002) or Perry and Servén (2002) with Hristov (2001, 2003).

Tab[illegible]entine and U.S. government finances, 1991-2001
(fig[illegible] of GDP except interest rates and country risk, which are simp[illegible])

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
[illegible]rgentine fe[illegible]ment											
Spending	15.4	15.7	16.8	15.5	18.1	17.4	18.1	18.0	19.0	18.6	18.2
Budget balance	-0.7	0.4	1.1	1.1	-0.5	-1.9	-1.4	-1.3	-2.5	-2.3	-3.2
Debt	47.8	[illegible]8.8	29.4i	31.4	33.8	35.7	34.5	37.5	43.0	45.1	53.5
Debt service	2.8	1.7	1.2	1.1	1.6	1.7	2.0	2.2	2.9	3.4	3.8
Interest [illegible]a	9.75	13.83	7.33	18.61	13.93	10.45	10.12	11.60	11.31	13.05	45.89
Count[illegible]	5.63	10.26	3.70	11.41	8.75	4.94	4.61	7.07	5.33	7.73	43.72
[illegible]e provinces and the city of Buenos [illegible]ires											
Spending	9.0	9.9	11.5	11.5	11.6	11.1	11.2	11.7	12.8	12.6	13.5
Budget balance	-0.8	-0.2	-0.8	-0.9	-1.2	-0.4	-0.0	-0.7	-1.4	-1.2	-2.4
Debt						5.1	4.0	4.4	5.8	7.5	11.2
Debt service	[illegible].4	0.2	0.5	0.5	1.0	1.1	1.1	1.0	1.0	1.0	0.9
U.S. federa[illegible]ment											
Spending	22.3	22.2	21.5	21.0	20.7	20.3	19.5	19.1	18.6	18.4	18.6
Budget balance	-4.5	-4.7	-3.9	-2.9	-2.2	-1.4	-0.3	0.8	1.4	2.4	1.3
Debt	45.4	48.2	49.5	49.4	49.2	48.5	46.0	43.0	39.8	35.0	32.9
Debt service	3.3	3.2	3.0	2.9	3.2	3.1	3.0	2.8	2.5	2.3	2.0
Interest r[illegible]	4.12	3.61	3.63	7.20	5.18	5.51	5.51	4.53	5.98	5.32	2.17
Count[illegible]	0	0	0	[illegible]	0	0	0	0	0	0	0
[illegible]tes and the District of Co[illegible]											
Spending	12.1	12.3	12.4	12.3	12.2	12.0	11.8	11.8	11.9	12.2	12.8
Budget balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt	5.8	5.9	5.9	5.8	5.8	5.8	5.5	5.5	5.5	5.6	5.6e
Debt service	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8

Notes: a = calculated by adding Argentine country risk to U.S. interest rate; e = estimate; i = break in series. Blanks indicate consistent data are not available. The U.S. interest rate is the auction rate for one-year Treasury bills. Debt figures for Argentina modestly understate indebtedness because they neglect off-budget activity. For statistics that attempt to adjust for off-budget activity, see Krueger (2002). Argentine federal revenue (not in the table, but used to calculate budget balance) excludes revenue sharing with the provinces; provincial revenue (likewise not in the table) includes revenue sharing. Some figures differ slightly from those in Table 1 because they were taken from different sources in the interest of overall compatibility for making the particular calculations here. Small discrepancies may exist because of rounding. Interest rates are for end of period, not period averages.

Sources: Argentine data: Ministry of Economy, “Main Macroeconomic Indicators,” <http://www.mecon.gov.ar/download/financiamiento/newinf.xls> (various data); Ministry of Economy, Secretaría de Hacienda, Direción Nacional de Coordinación Fiscal con las Provincias, <http://www.mecon.gov.ar/hacienda/dir_coord.htm> (provincial budget data); International Monetary Fund, *International Financial Statistics* and Argentina country reports; Dal Din and López Isnardi (1998), p. 8 (federal debt, 1991-92); J. P. Morgan (country risk). U.S. data: Congressional Budget Office, “Historical Budget Data,” at <http://www.cbo.gov> (federal budget data); Department of Commerce, Bureau of the Census, <http://www.census.gov/govs/www/statetax.html> (state budget data); Department of Commerce, Bureau of Economic Analysis (GDP); U.S. Treasury (interest rates).

implement the plan a year later.[52] The estimates of federal debt for 1991 and 1992 are therefore less solid than the figures from 1993 onward.

Because of frequent episodes of high inflation and creative accounting such as placing considerable amounts of government spending off-budget at times, historical statistics for the finances of Argentina's federal government are not reliable. Still, judging from what evidence is available, the government spending during the convertibility system does not seem unusually high as a proportion of proportion of GDP. The pattern in Argentina has been for federal spending to rise towards 20 percent of GDP when inflation is below mid double digits per year, and to fall to 10 percent or less of GDP when higher inflation reduces the real value of tax revenue. But the periods of lower reported ratios of on-budget spending to GDP are precisely the periods in which off-budget spending financed by inflation has been most important.

Argentina's ratio of government debt to GDP increased in the mid 1990s, but much of the increase came from converting contingent liabilities into explicit liabilities. A reform of the social security system began in August 1994. Some payroll taxes that the federal government had formerly used for a pay-as-you-go system now went into private accounts. The federal government had to finance the resulting shortfall in current social security payments by other means. The government also bore some of the costs of rescuing provincially owned banks in the recession of 1995. Unlike many other countries in similar situations, Argentina closed or privatized the banks to prevent them from causing further problems. Some observers[53] have argued that the federal government should not have converted its contingent liabilities from the social security system into explicit liabilities, but doing so would have made the budgetary situation less transparent.

As will be discussed later, the dynamics of Argentina's government debt became a big problem in 2001. The experience of Argentina, Brazil, and some other countries in the last few years suggests that the level at which government debt can become dangerous in developing countries is lower than almost all observers once suspected. But in 1998, and even as late as 2000, Argentina's debt did not seem unsustainable, even though its high ratio of external debt to exports worried some observers.

Provincial government finances. Most U.S. states are required by their constitutions to balance their annual or two-year operating budgets, so their combined budget deficit is usually less than 0.1 percent of U.S. GDP. In Argentina, on the other hand, the combined budget deficit of the provinces was well above that level except in 1997, as Table 5 shows. About half of provincial revenue comes from federal revenue sharing, called "coparticipation" in Argentina.[54] Revenue sharing reduces the link between the taxes provinces levy and the money they spend. The U.S. government typically has not bailed out states that have suffered financial problems, but Argentina's

[52] Argentina's debt restructuring was a response to the Brady plan. The plan, named after U.S. Treasury secretary Nicholas Brady, offered international help for developing countries that had defaulted on their foreign debts in the early 1980s, if the countries made economic reforms.
[53] Cibils and others (2002), p. 3.
[54] For details, see Cuevas (2003) and Tommasi (2002).

federal government frequently has, because governors have considerable influence in the Argentine Congress. Many governors operate patronage machines whose loyalty is to them more than to a national political party. The president often needs the backing of a province's governor to secure support from the province's members of the Congress.

The question arises, then, how important provincial finances were in causing the economic crisis. Reflection suggests they were only a secondary factor. Provincial deficits and debt, like federal deficits and debt, increased during the economic slump that began in 1998. Assuming provincial debt to be implicitly a form of federal debt makes the trend of federal debt worse starting in 1998. But if the provinces had maintained balanced budgets yet nothing else had changed, the crisis would still have happened. As later sections explain, the federal government's blunders in economic policy deepened the shrinkage of the economy, reducing tax revenue. The federal government created sufficient problems of its own that it needed no "help" from the provinces.

As has happened many times before, stretching back to the 1800s, almost half the provinces responded to the crisis by printing bonds for as little as one peso that are intended to circulate like money and are hence of questionable legality.[55] The bonds circulate at as little as 45 percent of face value, although some provinces fine merchants who do not accept them at face value. Press reports indicate that outside of the city of Buenos Aires, the bonds are the most commonly used form of hand-to-hand currency. The federal government has begun to redeem some provincial bonds, though it will not necessarily redeem them at full value.[56]

IV. WHY THE CRISIS OCCURRED

Having reviewed why some frequently suggested explanations for Argentina's crisis are unsatisfactory, it is time to attempt an explanation that fits the facts better. Box 2, on the next page, summarizes the proposed explanation, which locates the policies most responsible for th[illegible] crisis as originating during the period from late 1999 to early 2002, with particular [illegible]hasis on the months from March 2001 to February 2002.

Externa[illegible] provoked a recession in 1998 and 1999. From 1998 onward Argentina faced [illegible]al situation unfavorable in three respects: foreign investment to emerging market [illegible]es fell in the context of some major currency crises; Brazil devalued its currency [illegible]anuary 1999; and the dollar was unusually strong.

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[55] These bonds are the Patacon (the most important, issued by the province of Buenos Aires since August 2001: see <http://www.ec.gba.gov.ar/Financiamiento/Patacones.htm> and <http://patacon.gba.gov.ar>); bono público Ley 4748 (Catamarca); Quebracho (Chaco); Lecor (Córdoba); Cecaror (Corrientes); Federal (Entre Ríos); Bocanfor (Formosa); ticket canasta (Jujuy); Petrom (Mendoza); Cemis (Misiones); Bocade (La Rioja); Rio clase IV (Rio Negro); Letras (Tierra del Fuego); and Bocade (Tucumán). As of March 2003, there were 2.7 billion pesos of Patacones in circulation, 1.5 billion pesos of bonds of other provinces, and 3.3 billion pesos of a similar federal government bond, the Lecop (*Nación* 2003). Provincial bonds violate article 75, paragraph 6 of Argentina's constitution, which forbids provinces from coining money or establishing note-issuing banks without authorization from the federal Congress.

[56] Decree 743/2003; Ministry of Economy, Resolutions 266/2003 and 335/2003.

Box 2. A summary explanation of Argentina's crisis (1998-2002)

- Fallout from currency crises in Russia and Brazil triggered a recession in Argentina by October 1998 under president Carlos Menem.
- Tax increases requested by new president Fernando De la Rúa, passed in December 1999 and effective January 2000, ended a budding recovery.
- Divisions over economic policy led to a split in president De la Rúa's coalition government on March 18, 2001. This was the start of the true crisis phase. Domingo Cavallo, appointed minister of economy after the split, made changes to the monetary system in April and June 2001 that reduced confidence in the peso and pushed up interest rates. He also helped obtain further tax increases in April and August 2001.
- These policies prolonged the recession. After ratings agencies reduced the government's credit rating in July 2001, the interest rates it had to pay became too high for it to sustain for long—a "debt trap."
- In December 2001, economic policy entered a phase in which the government "contaminated" the private sector. The contamination included a freeze on bank deposits under president De la Rúa; incoherent proposals by president Adolfo Rodríguez Saá, who defaulted on the government's foreign private-sector debt; and devaluation of the peso plus other emergency measures by president Eduardo Duhalde in January and February 2002. The economy shrank further, reaching bottom around August 2002 at 28 percent below the peak of 1998.

The East Asian currency crisis of 1997-98 and the Russian currency crisis of August 1998 made investors in developed countries much more cautious about investing in developing countries, even those far from East Asia and Russia. Estimated net private flows of capital to developing countries fell from a peak of $187.8 billion in 1996 to just $8.3 billion in 2001, as investors in developed countries sold many of the stocks and bonds they had bought in developing countries.[57] In Argentina, the capital and financial account, which measures net foreign investment, turned from a net inflow of $18.3 billion in 1998 to a net outflow of $4.4 billion in 2001.

To repeat, Brazil, Argentina's largest trading partner, withstood a currency crisis from August to October 1998, on the heels of the Russian crisis. In a fresh currency crisis in January 1999, Brazil allowed its currency to float rather than maintaining the "crawling peg" to the dollar that had previously existed. The Brazilian *real* quickly depreciated from 1.21 per dollar to 2.18 per dollar before recovering somewhat. (As of early June 2003, the exchange rate of the *real* is about 2.90 per dollar.) Brazilian manufacturers gained a temporary advantage over Argentine competitors, because wages in Brazil did not immediately rise to offset the depreciation in full. Growth in Brazil's real GDP slowed from 3.3 percent in 1997 to 0.1 percent in 1998 and 0.8 percent in 1999. After years of gains, Argentine-Brazilian trade was flat in 1998 and shrank in 1999.

[57] International Monetary Fund (2002), p. 212.

Because the Argentine peso was pegged to the U.S. dollar, it appreciated with the dollar against most other currencies, notably the *real* and euro. The Federal Reserve's "broad" measure of the exchange rate strength of the dollar, based on an index level of 100 for March 1973, rose from a low of 84.23 in July 1995 to a peak of 113.09 in February 2002—its highest level since January 1986. Some analysts of U.S. monetary policy thought that from 1999 to 2001, part of the strength of the dollar resulted from the Federal Reserve keeping monetary policy too tight. Trends in commodity prices and other indicators support this view.

External events triggered the initial recession, but were not responsible for deepening the recession into a depression. As has been mentioned, the peso prime rate rose sharply from August to October 1998 and again in January 1999 on fears Argentina might devalue. High interest rates hurt the economy, but they were temporary: by April 1999, interest rates were back around the levels prevailing before the Brazilian crisis. Foreign investment in Argentina did not actually turn negative until the first quarter of 2001. This reversal seems to have resulted more from investors' specific fears about Argentina than from the general reduction of investments to emerging markets: Brazil and Mexico, the two biggest Latin American economies, continued to attract substantial foreign investment in 2000 and 2001. After dipping in 1999 as a result of events in Brazil, Argentina's exports to all countries combined grew in 2000 and reached a record level in 2001, despite the strength of the dollar and therefore of the peso.

The behavior of interest rates in Argentina reinforces the case that domestic factors were paramount in causing the crisis. In 2001, lending rates charged by banks rose steeply in Argentina at the same time they were falling in the United States. They were also falling in El Salvador, Panama, and, more erratically, in Ecuador. The difference between the other countries and Argentina was that they all used the dollar as their official currency, while Argentina maintained a separate currency, which was losing the confidence of Argentines and foreigners alike.

Even if one thinks external events were more important for the crisis than some of the statistics indicate, it is the responsibility of a national government to respond constructively to such difficulties. In 1995, fallout from Mexico's financial crisis caused a "sudden stop" of investment flows to Argentina similar to that of 2001. The Menem government overcame the crisis with a package of reforms to make the economy more resilient. The successive approaches of the Menem, De la Rúa, and Duhalde governments to the unfavorable external situation since 1998 were unfortunately less constructive.

The January 2000 tax increase ended a budding economic recovery. In late 1999 and early 2000, Argentina's economy was showing signs of growth. On a quarter-over-quarter basis, it grew in the fourth quarter of 1999. On a year-over-year basis, the rate at which the economy was shrinking slowed from 5.1 percent in the third quarter of 1999 and to 0.2 percent in the first quarter of 2000. The estimate of monthly economic activity calculated by Argentina's national statistical institute, which had turned negative starting in October 1998, turned positive in December 1999. The government of president De la Rúa also enacted the first of its three packages of tax increases in December 1999; the increases became effective in January 2000. The package increased income tax rates for taxpayers earning more than 30,000 pesos a year; subjected retirement benefits over 24,000 pesos a year to tax; increased the asset tax from 0.5 percent to 0.75 percent for assets over 200,000 pesos; and raised taxes on cars, beverages, and tobacco.[58] As has been mentioned, the government judged that raising tax rates was the only option for addressing the federal budget deficit that seemed both politically feasible and perhaps economically beneficial. However, economic indicators quickly turned negative again as the tax increase ended the economic recovery.

The budding recovery in late 1999 is an important piece of evidence against the view that an overvalued peso was important in making the crisis so prolonged. By almost all indications suggesting that the peso was overvalued, overvaluation was greater in late 1999 than in late 1998, because Brazil had devalued in the meantime. Hence rather than showing signs of recovery, Argentina's economy should still have been weakening further. Under the circumstances, raising tax rates was the wrong approach, and it had results opposite from what the government expected: it reduced confidence in government finances by discouraging growth in the private sector, the source of the government's tax revenue.

New b[illegible]n tax and monetary po[illegible]e matters worse in ear[illegible] The return to a[illegible]ng economy in 2000 and [illegible]d to political divisions. [illegible] time, president D[illegible]Rúa wished to avoid deval[illegible]he peso, because he knew [illegible] economic and pol[illegible] risks involved. To balance [illegible] budget, he was willing to [illegible] government spendin[illegible]s well as increase tax rates. [illegible] coalition partner, the Frepas[illegible] party, was more willin[illegible] to devalue, and opposed spendin[illegible] cuts. Some members of De la Rúa's Radical party also opposed spending cuts. The resignation of Frepaso cabinet ministers on March 18, 2001, in protest over proposed cuts, marked the start of the true crisis phase of Argentina's economic problems. The resignations weakened president De la Rúa's base of support in the Argentine Congress. As Figure 1 above showed, the next day, interest rates in Argentina moved to permanently higher levels, with further spikes during the rest of the year related to bad news about economic policy.

After the Frepaso cabinet ministers resigned, President De la Rúa appointed Domingo Cavallo as minister of economy. Cavallo was the head of a small political party, so he brought votes; even more important, he brought prestige because of his role as economy minister from 1991 to 1996, when he had first helped create the conditions for strong growth in the early years and then helped resolve the financial crisis of 1995. However, in his return as economy minister, Cavallo undertook policies much different from those he had instituted before, and the new policies made the economy worse.

De la Rúa and Cavallo secured the approval of Argentina's Congress for two more packages of tax increases, effective April and August 2001. The April package imposed a financial transaction tax—a fee payable on every bank deposit or withdrawal, and every sale of stock. The rate was initially 0.25 percent; it was raised to 0.4 percent later in April and to 0.6 percent in August. The rate may sound low, but one former Argentine secretary of public revenue estimated that it was like raising the value-added

[58] Law 25.239.

tax by 5 percentage points. The August package broadened the applicability of the financial transaction tax and raised the gasoline tax by 10 centavos a liter, which at the time was equal to 38 U.S. cents a gallon.[59]

The revenue each package generated was below projections, because rather than increasing confidence in the economy as the government hoped, they discouraged growth. The De la Rúa government never tried a concerted plan of reducing tax rates, although it reduced some individual rates within the context of generally increasing rates elsewhere. Most of the tax increases it enacted are still in place.

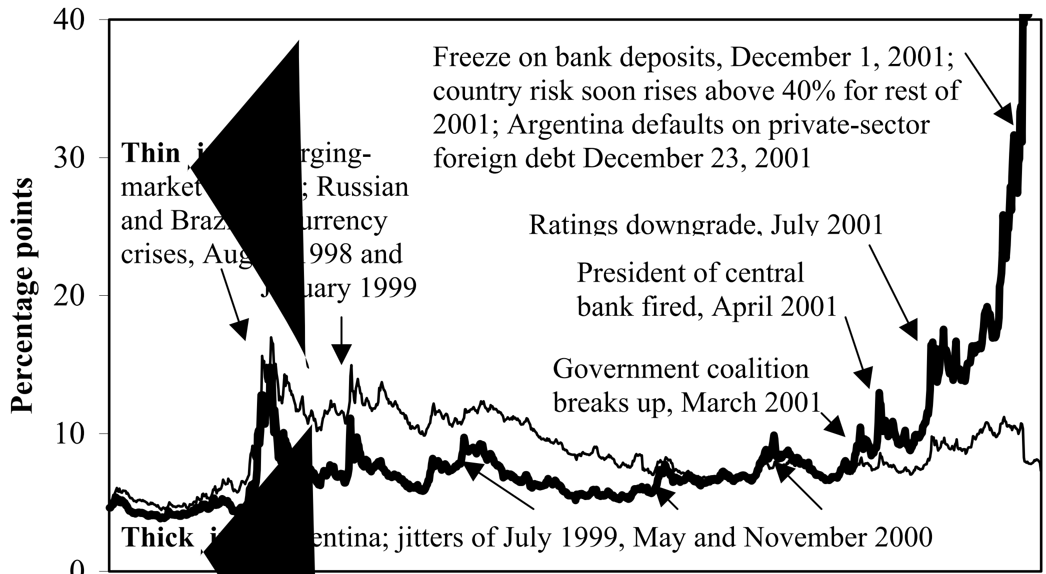
In monetary policy, the government made the key blunders in April and June 2001. On April 17, Cavallo introduced a bill to switch the exchange rate link of the peso from the dollar alone to a 50-50 combination of the dollar and the euro.[60] The president of the central bank, Pedro Pou, had advocated dollarization (officially replacing pesos with dollars) if necessary to ensure credibility for the peso. His views put him at odds with minister Cavallo and president De la Rúa. On April 25, president De la Rúa fired Pou and replaced him with a more pliable official.[61] On June 15, Cavallo announced a preferential exchange rate for exports.[62] The special rate was a step back towards the interventionist practice, frequent before the convertibility system, of decreeing different exchange rates for different types of buyers and sellers, rather than allowing everyone access to the same exchange rate in a free market. On June 21, the bill switching the exchange rate link of the peso became law. All these steps created fear that the convertibility system would not last much longer and that Argentina would revert to its previous habit of rapid currency depreciation.

The new taxes further burdened an already struggling economy. The changes in monetary policy reduced confidence in the peso. Interest rates in pesos soared, as Figure 1 above showed; even rates in dollars within Argentina rose substantially, because of concern that loans and deposits in dollars were also at risk from government policies. High interest hurt growth by making it costly for businesses to use credit to expand.

The Argentine government entered a "debt trap" by mid 2001. The federal government's failure to take effective measures to end the recession created a crisis of confidence in government debt, because a shrinking economy meant a shrinking base of tax revenue from which to pay the debt. An indicator often used to judge confidence is the country risk premium, also known as the default risk spread. The country risk premium is the difference between the interest rate paid by a government such as Argentina when it borrows in dollars and the comparable rate paid by the U.S. government. The U.S. government pays no premium to borrow in dollars because the

[59] Laws 25.413 and 25.453; Decrees 380/2001, 503/2001, and 969/2001.
[60] Law 25.445. In Argentina, the executive branch can introduce bills directly into the Congress.
[61] Officially, Pou was fired because an investigation by the Argentine Senate found that the central bank had been lax in monitoring money laundering. Unofficially, the investigation was widely seen as being about whether the central bank would remain independent enough to keep the convertibility system unchanged when president De la Rúa and minister Cavallo wanted to change it.
[62] Enacted by Decree 803/2001, effective June 19, 2001. Hanke (2002, p. 212), lists no fewer than 27 actions by Argentina's government that contributed to the undoing of the convertibility system.

Figure 4. Country risk, 1998-2001



Sources: J. P. Morgan Emerging Markets Bond Index Plus; news reports.

chance of default is nearly zero: in the extreme, the Federal Reserve could print money to pay the Treasury's debts.

Figure 4 shows Argentina's country risk premium from 1998 to 2001, as calculated by the widely used J. P. Morgan Emerging Markets Bond Index Plus. The spikes in the premium in August-September 1998 and January 1999 resulted from currency crises in Russia and Brazil. Argentina's country risk premium (the thick line in Figure 3) was consistently below the average for countries covered by the index (the thin line). When president De la Rúa took office in December 1999, the premium was 6.10 percentage points (610 basis points), meaning that if the U.S. Treasury was paying an interest rate of 5 percent, Argentina's government could expect to pay 11.10 percent. Argentina's premium was almost the same as the premiums of Colombia and Peru, and significantly below those of Brazil and Venezuela. Argentina's country risk premium was below average until August 2000, and was rarely more than 1 percentage point above the average from August 2000 to March 2001.

Starting March 19, 2001, the first day after the Frepaso cabinet ministers resigned, Argentina's country risk premium began to diverge from the average for the index. After the monetary policy blunders of April, Argentina's premium jumped to almost 13 percentage points. In July, when international bond rating agencies downgraded Argentina's government debt, the premium rose above 16 percentage points. It never fell below 13 percent points, and by the end of October it exceeded 20 percentage points. Such high rates indicated many investors feared a default. The government was in a "debt trap": at the interest rates it faced, its debt would quickly grow beyond the capacity of the Argentine economy for repayment.

The debt-financing problems the Argentine federal government faced in 2001 resulted more from the accumulated debt of previous years than from the annual deficit in 2001. If the federal budget had been in balance in 2001, but the economy had still been shrinking, it is likely that interest rates on the debt would still have been high, because investors would have continued to worry about how the economy could generate enough tax revenue both to finance a growing debt and provide for other government spending desired by Argentina's politicians and people. The shrinking economy rather than the sheer magnitude of the debt was the fundamental problem. With economic growth, it is likely that Argentina's country risk premium would have remained at or below the average for the Emerging Markets Bond Index Plus. That in turn would have enabled Argentina to finance debt coming due at much lower cost.

The private sector, though weakened by the recession, was in a stronger financial position than the public sector. For example, whereas the public sector was a net debtor to the rest of the world, the private sector was a net creditor. From 1994 to 2000, the net debt of Argentina's public secto[redacted]ose from $43 billion to $58 billion, while the ne[redacted] assets of the private sector rose from [redacted] billion to $29 billion.[63]

Government po[redacted]ntaminated" the private sector in [redacted] and 2002. In December 200[redacted]sis entered its final phase, in which th[redacted]nment spread its problems to the p[redacted]sector through a variety of policies rather th[redacted]ing to minimize the spread. Faced [redacted] a choice of "contamination" or "quaranti[redacted]or its problems, the government chos[redacted]ntamination.

The difficulty the government was having in refinancing its debt led to fear that it would freeze bank deposits, as it had done in 1982 and 1989. During those freezes, the government in effect confiscated part of the savings of bank depositors to finance itself and pay some foreign debt. After heavy withdrawals of deposits from banks on Friday, November 30, Cavallo announced a freeze of deposits on December 1. The deposit freeze brought much private-sector activity to a halt, because under the rules of the freeze, businesses and individuals could not use their deposits to pay anybody except other depositors at the same bank. The estimate of monthly economic activity calculated by Argentina's national statistical institute suffered a year-over-year fall of 15.5 percent, the biggest since the series began in 1993. The economy plunged from what was still arguably a recession, though a bad one, into a true depression.

By December 20, minister Cavallo and president De la Rúa had resigned after deadly riots brought about by the shrinking economy and the deposit freeze. On December 23, president Adolfo Rodríguez Saá declared a default on the federal government's debt to foreign private-sector creditors. The situation was by then so disorganized that default was almost impossible to avoid, but Rodríguez Saá handled it in a way that damaged the government's reputation. Rather than presenting the default as a reluctant step by a debtor willing but unable to pay its bills, he presented it as an act of defiance to creditors. He had ideas for other sweeping changes in economic policy, such

[63] As noted by Powell (2002, Table 2), based on official statistics for Argentina's balance of payments.

as issuing a second national currency in parallel to the peso, but did not implement them because he resigned after a week following demonstrations against him.

Eduardo Duhalde, who became president on January 1, 2002, instituted revolutionary changes in economic policy by devaluing the peso; pesofying dollar deposits and loans; and voiding many kinds of contracts. He upset property rights that had been well established in Argentine law for at least a decade, and in some cases since the 1800s. The economy plunged further, with the year-over-year estimate of monthly economic activity falling a record 16.9 percent in January and 16.6 percent in March. The estimate did not turn positive until December. After shrinking 5.5 percent in 2001 the economy plunged another 10.9 percent in 2002. It is common for stabilization measures to take time to have an effect, but they should result in growth or at least slower decline if they really work. Instead, the decline of the economy accelerated. In 2002, poverty rose sharply, as did unemployment (excluding people working in emergency government relief programs). Exports fell 4.5 percent despite the huge boost the currency depreciation should have given. Exporters had difficulty obtaining credit because of the deposit freeze and government policies that made creditors afraid of further confiscations if they resumed lending.

Around August 2002 the economy finally started growing again. Part of the credit is due to economy minister Roberto Lavagna, who took office in April 2002. He maneuvered skillfully within the rickety policy framework president Duhalde established. The rest of the credit is due to the economy itself, which began recovering once the government stopped doing further damage to it. One way of gauging well-being, real GDP per person, was at about the same in 2002 as in 1969.[64] Another way of gauging well-being, GDP per person converted into U.S. dollars, was about the same in 2002 as in 1989; it fell from approximately $8,300 in 1998 to $7,400 in 2001 to $2,800 in 2002.

V. WHAT COULD ARGENTINA HAVE DONE DIFFERENTLY? WHAT COULD IT DO NOW?

What could Argentina have done differently? Argentina could have tried a different approach to both fiscal policy and monetary policy starting in 1999, when it became apparent that the economy was in recession. In fiscal policy, it could have cut tax rates, particularly the 2[illegible] percent value-added tax and the [illegible] percent payroll tax. The government never tried cutting tax rates to spur the economy. (Other changes, particularly relaxing Argentina's rigid labor laws and reforming the notoriously inefficient health care system, would also have been beneficial, but not as immediately important as these fiscal and monetary policy measures.)

By early 2001 government finances were in such a situation that cuts in tax rates probably would not have been possible without some corresponding cuts in spending to finance them. The budget cuts proposed in March 2001 by minister of economy Ricardo López Murphy were 4.5 billion pesos over two years—less than 1 percent of GDP a year,

[64] Heston and others (2002), real GDP per person (chained), supplemented with Argentine government figures to estimate 2002 figure.

or about 4 percent of federal revenue in the broad sense (which includes revenue shared with the provinces). López Murphy proposed cutting subsidies; reducing federal revenue sharing with the provinces; eliminating discretionary spending by individual members of the Argentine Congress; reforming the social security agency; and reducing spending on universities. The proposal contained no tax cuts to stimulate growth, though. Key political constituencies refused to accept cuts in spending, so the proposal died. Failure to accept relatively mild cuts in 2001 gave way in 2002 to inflation that cut real government spending far more.

In monetary policy, Argentina could have dollarized, that is, replaced the peso with the dollar as its official currency at the then-current rate of one dollar per peso.[65] President Menem discussed the possibility of dollarization after Brazil's currency devaluation in January 1999 created concern that Argentina might follow. After receiving little support from Argentina's political class and a cool response from the Clinton administration,[66] Menem dropped the idea. Had he been firmly committed to dollarization, he might have been able to make it happen without an act of Argentina's Congress. Argentina's central bank, whose president was supportive of dollarization, could simply have withdrawn all the pesos it had issued (the monetary base) and replaced them with dollars; as Table 3 above indicates, the central bank had more than sufficient dollar reserves to do so by any measure until at least December 2001.[67] Eliminating the peso through dollarization would have eliminated the "devaluation premium" of peso interest rates over dollar interest rates and encouraged inflows of capital, thereby stimulating the economy.

If dollarization had later proved insufficient to stem a loss of bank deposits, such as began in March 2001, the government could have taken the unusual but logical step of allowing solid banks to issue their own dollar notes (paper money) to compete with those issued by the Federal Reserve System.[68] Demand to convert bank deposits into bank notes would not have caused a loss of reserves for note-issuing banks, since customers would merely have been switching from one type of liability of a particular bank to another type, like switching funds from a checking account to a certificate of deposit. To the extent banks succeeded in displacing Federal Reserve notes, they would have gained

[65] Some observers suggested in 2001 that if Argentina dollarized, it should first devalue, converting pesos into dollars at, say 1.20 pesos per dollar. Because the financial system was exposed to currency risk, devaluing the peso without correspondingly reducing dollar liabilities would have created problems like those that have arisen from pesofication, though on a smaller scale. Proposals to allow Argentina's central bank to continue as the issuer of the currency and make a "one time only" devaluation were not credible because of the central bank's history of repeated devaluations.

[66] U.S. Senate (1999).

[67] Even in December 2001, if reserves had been inadequate the central bank could have used some of its net worth of 3.1 billion pesos to cover the gap.

[68] As proposed by Selgin (2001). Had banks still continued to experience losses of deposits and drains of reserves, a possible response would have been a temporary suspension of payments. Banks could have suspended convertibility of their deposits into Federal Reserve-issued dollars and paid a penalty interest rate to compensate depositors and provide an incentive to end the suspension as soon as circumstances allowed. Unlike the case in Argentina's deposit freeze, banks that did not want to suspend payments would not have been forced to do so. There have been many historical cases of suspensions of payments, some handled better than others. For more on suspensions of payments, see Dowd (1993), pp. 25-113.

dollar reserves. Note issuance by banks has a history centuries long and has been practiced in many countries, including Argentina and the United States. It still exists in restricted form in Scotland, Northern Ireland, and Hong Kong, where it causes no particular problems to the public or to the workings of the monetary system.

Finally, if despite these reforms the government had still been unable to reduce the growth of its debt to a sustainable rate, the best response would have been for the government to default on its foreign debt but not contaminate the private sector with its financial problems.[69] There was no need to freeze bank deposits, devalue the peso, and pesofy contracts. When a municipal government goes bankrupt, it does not confiscate wealth from the bank accounts of city residents or void contracts in which it has no direct participation. Letting it do so would violate property rights and undermine the base of private-sector activity on which the municipal government depends for its tax revenue. Instead, the municipal government reorganizes to become more efficient, and resumes payment on its debt when its finances have improved. National governments wishing to minimize damage to their economies should follow the same approach.

Would a different exchange rate policy have helped avoid the crisis? Some observers have suggested that with a floating exchange rate or, at the other extreme, a gold standard, Argentina could have avoided or at least minimized the crisis.

A number of those who have argued that a floating exchange rate would have worked better than the convertibility system think it would have enabled Argentina's economy to work around some key rigidities that have hampered its economic growth, especially rigid wages. If so, the devaluation and floating of the peso in January and February 2002 should have brought quick relief. Instead, the economy contracted even more steeply before finally reaching bottom. Throughout Argentina's history, floating exchange rates have been associated with high inflation, extreme depreciation of the exchange rate, and economic instability, as in the period preceding the convertibility system. That is why Argentines prefer dollars to pesos. Before pesofication, most bank deposits and loans were in dollars. Argentina's central bank estimates that Argentines hold $35 billion of dollar paper currency,[70] which at the exchange rate current in early June 2003 is worth more than all bank deposits. (These judgments about floating exchange rates are specific to the case of Argentina; they do not imply that floating exchange rates are undesirable in general.)

Another argument is that the convertibility system gave investors a false sense of security in the exchange rate and enabled the Argentine government and Argentine companies to become more heavily indebted than they would have with a floating exchange rate.[71] However, Argentina's external debt (debt owed abroad by the government and the private sector) was in the same range when the federal government

[69] As suggested by Calomiris (2001).
[70] *Clarín* (2003b).
[71] Calvo and others (2002, pp. 29-30) think the convertibility system helped conceal the government's financial problems, but doubt that adopting a floating rate in 2000 would have done much to remedy the problems.

defaulted under a floating exchange rate in 1982 as when it defaulted under the convertibility system in 2001—50 to 60 percent of GDP.[72]

Argentina is not the only South American country to have experienced problems with its government finances in the last few years. Ecuador defaulted on its government foreign debt in 1999. Uruguay restructured its government debt in May 2003, in what has been termed a "stealth default."[73] Paraguay is past due in its payments to the World Bank. A loan from the IMF enabled Brazil to avoid the risk of default in September 2002, but Brazil still faces problems. Venezuela is having some difficulties with its government debt. All of these countries have (or in the case of Ecuador, had) more flexible exchange rate arrangements than Argentina's convertibility system.

In thinking about whether either an independently floating exchange rate would have produced better monetary policy than dollarization would have, the relevant question is not whether the Federal Reserve makes mistakes from time to time, but whether Argentina's central bank makes more or fewer mistakes. The historical record is that it makes more mistakes.

At the other extreme, a few observers thought Argentina would have been better served by a gold standard operated by the central bank than by a pegged exchange rate with the dollar.[74] To repeat, there were signs that from 1999 to 2001, the Federal Reserve kept U.S. monetary policy too tight. Argentina experienced deflation in consumer prices from 1999 to 2001. However, Argentina's historical experience suggests that a gold standard would have provided a looser monetary policy only if it had inspired confidence that devaluations would be rare. The only arrangement that has ever inspired such confidence was the currency board system that existed from 1902 to 1914 and 1927 to 1929.[75] In Argentina, attempts to adhere to a gold standard under systems other than a currency board have resulted in frequent devaluations or rapid abandonment of the standard. Under the stewardship of the central bank, between the time Argentina registered a gold parity with the IMF in January 1957 and the time the Bretton Woods gold-exchange standard began to break up in August 1971, the Argentine peso depreciated from 630 pesos moneda nacional per troy ounce of gold to 16,450 pesos moneda nacional per troy ounce.[76]

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[72] In 1827, the United Provinces of the River Plate defaulted under a floating exchange rate. In 1889, the federal government partly defaulted on its domestic debt under a floating exchange rate. In 1890, many municipal and provincial governments defaulted on their foreign debt, but a loan from the Bank of England enabled the federal government to avoid default. In 1890, the combined debt of all levels of government was 65 percent of output, and government external debt was 36 percent of output; no data for total external debt, public and private, seem available (della Paolera and Taylor 2001, pp. 25, 30, 81).

[73] Bussey (2003).

[74] For example, Churchill (2001).

[75] The currency-issuing bureau, the Caja de Conversión, was fairly orthodox during these dates, but the government-owned Banco de la Nación Argentina operated as a quasi central bank in some ways.

[76] The troy ounce, a unit long used in weighing gold, equals 1.097 ordinary ounces or approximately 31.1 grams. Argentina has changed its currency several times. The original peso was in use from Spanish colonial times. The peso moneda nacional replaced it on November 5, 1881 at 1 peso moneda nacional = 25 pesos. The peso ley replaced the peso moneda nacional on January 1, 1970 at 1 peso ley = 100 pesos moneda nacional. The peso argentino replaced the peso ley on June 1, 1983 at 1 peso argentino = 10,000

What could Argentina do now? To repeat, Argentina's economy has been in a recovery since about August 2002. The important questions are how long the economy will take to return to its pre-depression level, and what Argentina might do to reverse its long-term slide from one of the world's richest countries in the early 20th century to a poor country today as a result of unusually slow growth.

Argentina could still benefit were the government to enact some of the policies it rejected from 1999 to 2001. (Admittedly, the government of president Nestor Kirchner is unlikely to follow the general approach suggested here.) Dollarization is still feasible, though not at the old rate of one peso per dollar. In January 2000, Ecuador began dollarization in the midst of a rapidly depreciating currency, high inflation, an economic depression, a freeze of bank deposits, and default on its government foreign debt—conditions worse than those of Argentina today. Dollarization gave the economy a much-needed injection of confidence and became the headline reform in package of new economic policies. The currency stopped depreciating, interest rates plunged, the economy started to grow, money began flowing back into the banking system and deposits were unfrozen, and the government resumed paying its (renegotiated) foreign debt. Ecuador still faces economic challenges, but it would not have recovered so quickly without dollarization.

The Duhalde government cut some tax rates[77] but raised others, especially on export products. The experience of Ecuador, which combined dollarization with other economic reforms, suggests that considerable room exists to start cutting tax rates towards the longer-term goals suggested on the next page. Ecuador's tax revenue from sources other than oil has increased from $2.5 billion in the depression year 1999 to a projected level of $4.9 billion in 2003 because of economic growth and better enforcement. Revenue has increased even though the government eliminated a financial transaction that in 1999 had produced 13 percent of nonoil revenue.[78] (Oil revenue depends mainly on world oil prices, so its correlation with other forms of revenue is weak.) Ecuador's transaction tax worked like the tax Argentina introduced in 2001.

At the start of 2001, Argentina's banking system was quite strong. The remaining banks have suffered long-lasting damage to their balance sheets and their reputations as a result of the deposit freeze of December 2001 and pesofication in February 2002. Many issues related to pesofication are still unclear. In its landmark ruling of March 5, 2003 on a pesofication case, Argentina's Supreme Court deliberately avoided a decision that

pesos ley. The austral (Spanish for "southern") replaced the peso argentino on June 15, 1985 at 1 austral = 1,000 pesos argentinos. The convertible peso replaced the austral on January 1, 1992 at 1 convertible peso = 10,000 australes. The convertible peso is the currency in use today, although it is no longer convertible at a pegged exchange rate.

[77] For example, income tax deductions were raised in January 2003 to partly offset inflation (Argentina, Administración Federal de Ingresos Públicos, Resolution 1410/2003).

[78] Ecuador's government spending has grown apace with revenue. In 2002, the outgoing president made a number of increases in spending not budgeted by Ecuador's Congress. The new president decided to retain most of the increases rather than incur the wrath of their beneficiaries, notably government employees. As of mid 2003, Ecuador is muddling through its budgetary problems.

would have applied to all classes of pesofied deposits. Should the court issue other rulings to the effect that the pesofication of all deposits was unconstitutional, depositors who want their dollars back will have to acknowledge that the policies of the Duhalde government so hurt the banks that depositors cannot expect full repayment immediately or perhaps ever. To repeat, the government ended the deposit freeze on April 1, 2003. As one of its last acts, the Duhalde government created a body to restructure banks and other financial institutions.[79] The banking system is now experiencing a recovery based on the recovery in the wider economy. Its health in the coming years will depend largely on the wider economy. With strong growth, banks may be able to restore their financial health with new profits. For the future, one possibility for protecting depositors that some Argentine economists have proposed is "offshorization"—moving deposits abroad in a legal sense.[80]

Like who want their dollars back from the banks, foreign creditors will have to acknowledge that they cannot expect full repayment from the government immediately or perhaps ever. Creditors have the best chance of repayment with a growing Argentine economy. To promote liquidity in the market for the defaulted securities, it may be worthwhile to consider establishing an official floor price for them.[81]

Policies for the more distant future. In the short term, then, monetary policy, tax rates, the banking system, and foreign debt are the key issues. Over the longer term, Argentina faces obstacles to growth in a number of other areas. The obstacles are well known inside and outside Argentina, and all have been the subject of extensive study.

- *Rule of law.* As recent events have shown, safeguards against takings of private property by the government are weak. The judicial system has a reputation for inefficiency and corruption. Violent crime became a big problem when the recession turned into a depression.
- *Tax strategy.* Over the longer term, Argentina should re-examine the structure of the entire tax system, including the efficiency of the tax bureaucracy. It would be possible to finance tax cuts through a combination of economic growth and restraint in spending that would keep the government budget in balance or in surplus. Real tax revenues are now rising as the economic recovery takes firmer hold. Real spending is not rising as fast because prices have not risen as fast as the peso has depreciated. As a result, the federal government has a budget surplus, which offers unusual political latitude to cut tax rates. Combining tax cuts with tax simplification and greater efficiency by the tax bureaucracy, Argentina could bring much of the underground economy above ground. It could change from a country that imposes high tax rates on a relatively narrow tax base to one that imposes lower rates on a broader base. Ambitious but not unrealistic goals over the next one or two presidential terms would be to reduce the value-added tax from the current level of 21 percent to 10 percent; reduce the payroll tax from the

[79] Unidad de Reestructuración del Sistema Financiero, created by Decree 1262/2003.
[80] For example, Rubinstein (2001).
[81] As in the proposal of Lerrick and Meltzer (2001).

current level of 27 percent to 20 percent; reduce the top rate of income tax; and eliminate nuisance taxes, including the tax on financial transactions.

- *Federal-provincial financial relations.* As has been mentioned, federal revenue sharing weakens the link between the taxes provinces levy and the revenues they spend. The federal government been reluctant to be firm with provinces that are in effect bankrupt. As a result, the provinces face weak financial discipline.
- *Government spending.* Spending on pensions and salaries of government employees, including superfluous employees, comprises a larger part of the budget than is desirable for a country at Argentina's level of economic development. Many expenditures lack transparency.
- *Labor.* Inflexible labor laws contribute to a high unemployment rate. Employers must pay heavy severance charges to fire employees, so they are less likely than employers in the United States to take a chance on hiring employees who may not work out. Argentina's national statistical institute estimates that 40 percent of wage earners work in the underground economy. (Many of these people have first or second jobs in the above-ground economy.)
- *Health care.* Government-run health care, provided through organizations called *obras sociales,* is poor.

VI. POLICY IMPLICATIONS OF ARGENTINA'S EXPERIENCE

Argentina's experience offers a few lessons consistent with other experience, as well as a "non-lesson" about generalizing too hastily based on a single historical episode.

Po[illegible]nternationa[illegible] [illegible]ince Mexico's financial crisis of 1994-95, there ha[illegible] similar crise[illegible]ng countries almost every year, as well as crises in [illegible]maller countr[illegible]me[illegible] crises have had repercussions in U.S. financial markets. The response of the United States and other countries has been to intensify study of the problems involved, advance some solutions, and strengthen international financial cooperation through a number of means. However, neither the U.S. government nor apparently any other government has articulated a comprehensive view about how to solve the crises. The only comprehensive views have been those of the some individual economists and of the International Financial Advisory Commission, a panel of experts appointed by the U.S. Congress to examine the U.S. role in the IMF and other international financial institutions.[82]

The main issues involved in recent international financial crises are exchange rate regimes; financial regulation; the role of international financial institutions, especially the IMF, in resolving crises; and restructuring government and private-sector debt. U.S. officials have expressed ideas on all these topics individually, but have not combined them into a comprehensive view. Such a view should not be set in stone, but it should reflect what officials think they have learned from the experience of the crises since 1994, and should serve as a guide for future policy. Lacking clear views, the international

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[82] Eichengreen (2002), International Financial Institution Advisory Commission (2000), Kenen (2001), Treuherz (2000).

community has in the last few years lacked consistency in its treatment of Argentina. The lack of consistency has contributed to erratic policy making by successive Argentine governments, which has hurt Argentines and foreign investors.

U.S. laws against foreign seizures of property. A number of the actions of the Duhalde government had the effect of seizing property or nullifying contracts with U.S. citizens and corporations. There are several U.S. laws on the books whose aim is to discourage foreign governments from taking such actions. For example, Title 22, section 2370a of the U.S. Code says, "The President shall instruct the United States Executive Directors of each multilateral development bank and international financial institution to vote against any loan or other utilization of the funds of such bank or institution for the benefit of any country" that has expropriated the property of any U.S. person, nullified any contract with any U.S. person, or taken any other action which has the effect of seizing ownership or control of the property of any U.S. person. The provisions apply until the country in question has made restitution or has provided for a suitable remedy such as arbitration under international law.[83]

These laws have generally not been applied by successive administrations, nor has Congress pressed for their enforcement. Since the laws are dead letters, an obvious question is whether their continued existence serves any purpose.

The IMF's behavior toward Argentina. To repeat, the International Monetary Fund made loans to Argentina in March 2000, January 2001, September 2001, and January 2003. Table 6, on the next page, lists details of these and other IMF loans since the government of president Carlos Menem in 1989. Argentina made greatest use of IMF loans in 1995, when fallout from Mexico's crisis caused a currency and banking crisis, and in 2001, when the federal government was trying to avoid default. Reportedly, the IMF's staff was less enthusiastic about some of the recent loans than several of the largest shareholder governments were. (Note that the table lists amounts in SDRs—Special Drawing Rights—not in dollars. The SDR is the unit the IMF uses for accounting. The SDR fluctuates with respect to the dollar; as of mid June 2003, one SDR was worth about $1.40.)

The IMF has made a number of important mistakes in its analysis, advice, and actions regarding Argentina. IMF officials who have written or spoken to the public have shown a poor understanding of the convertibility system. They have usually called it a currency board, neglecting features of the system that made it not orthodox and its exchange rate not truly fixed. This has happened even though the IMF has in other respects become more attuned to the differences between fixed and intermediate (pegged) exchange rates. Poor understanding of the convertibility system led to bad advice about how to handle its problems. IMF officials reportedly favored devaluing the peso because they thought it was overvalued, even though evidence from the IMF's own country reports on Argentina was mixed. They also discouraged consideration of dollarization, in

[83] Related sections from Title 22 of the U.S. Code are section 283r; section 284j; section 2370, subsection (e); and section 2370a, subsections (a) and (b).

Tab[redacted]rgentina, 1989-2003

Type of[redacted]	[redacted]*ate approved-* [redacted]*xpired or cancelled*	*Agreed* (*millions of SDRs*)	*Drawn*	*Owed*
Stand-by	November 10, 1989-March 31, 1991	736.00	506.00	0
Stand-by	July 29, [redacted]1-March 30, 1992	780.00	438.75	0
Extended	March 31, 1992-March 30, 1996	4,020.25	4,020.25	619.11
Stand-by	April 12, 19[redacted]6-January 11, 1998	720.00	613.00	0
Extended	February 4, 1998-March 10, 2000	2,080.00	0	0
Stand-by	March 10, 2000-January 23, 2003 (augmented January 12, 2001 and September 7, 2001 to total shown)	10,850.14	3,881.36	3,881.36
Supplemental	January 12, 2001-January 11, 2002 (augmented September 7, 2001 to total shown)	6,086.66	5,874.95	5,133.97
Stand-by	January 24, 2003-August 31, 2003	2,174.50	973.20*	973.20

Notes: Amounts Argentina owes the IMF are as of April 30, 2003. The SDR, or Special Drawing Right, is the unit the IMF uses for accounting. The SDR fluctuates with respect to the dollar; as of mid June 2003, one SDR was worth about $1.40. Stand-by arrangements are for 2¼-5 years and carry the IMF's "adjusted rate of charge" (which averaged 2.29 percent during April and May 2003) plus interest of up to 2 percentage points. Loans from the Extended Fund Facility are for 4½-10 years and carry the adjusted rate of charge plus interest of up to 2 percentage points. Loans from the Supplemental Reserve Facility are for 1-3½ years and carry the adjusted rate of charge plus interest of 3-5 percentage points. The date a loan expires or is cancelled by the IMF marks when a country can no longer make new drawings; it is not the date by which a loan must be repaid.

Sources: International Monetary Fund, "Argentina: History of Lending Arrangements," and Press Release No. 03/09, January 24, 2003, at IMF Web site.

part because they considered it technically infeasible.[84] But dollarization is *always* technically feasible at some exchange rate.

The IMF has favored high tax rates in the name of budgetary prudence, seemingly unaware of the extent to which high rates have impeded economic growth in Argentina. The IMF's acting managing director called the January 2000 tax increase, which ended a budding recovery, "an unfortunate necessity at the moment."[85] More recently, the IMF

[84] On fixed versus intermediate exchange rates, see Stanley Fischer (2001), who at the time was the IMF's first deputy managing director. Working papers and speeches on the IMF Web site contain many examples of failure to distinguish between the convertibility system and an orthodox currency board system, such as the speech by Fischer just mentioned; a recent case is Collyns and Kincaid (2003, pp. 2, 5). One of the few counterexamples is International Monetary Fund (1998, p. 4, note 2). On the preference of IMF officials for a floating peso, see Faiola (2002). On overvaluation, compare the remarks of Anne Krueger (2002b), the IMF's first deputy managing director and highest-ranking economist, with the IMF staff's calculations of the real effective exchange rate adjusted for unit labor costs (International Monetary Fund 2001, p. 10), reproduced above. It was also Krueger (2002a) who said it was her understanding that dollarization was not technically feasible. An advisory panel of former central bank officials sent by the IMF to Argentina in July 2002 also discouraged dollarization without serious analysis; see Gallo (2002).

[85] Fischer (2000).

pressured the Duhalde government not to make permanent a two-month reduction in the value-added tax to 19 percent, which took effect November 18, 2002; on January 18, 2003, the tax returned to 21 percent.[86] The new government of president Kirchner has floated a trial balloon about the possibility of reducing the rate to 18 percent.

The IMF's September 2001 loan allowed Argentina's government to continue with policies that were clearly not restoring economic growth. Michael Mussa, the IMF's director of research at the time, later called the loan "the worst single decision made in the ten years that I was at the IMF."[87] In December 2001 the IMF itself thought lending more money would be a waste of resources, and it ceased disbursing the rest of the loan.

When the U.S. Congress approved an increase in the U.S. contribution to the IMF in 1998, it attached certain conditions. One was that in cases where a country was experiencing balance of payments difficulties arising from a large and sudden loss of confidence, the IMF should charge an interest rate at least 3 percentage points above its low ordinary rate.[88] This provision originated from *IMF Transparency and Efficiency Act of 1998,* introduced by Rep. Jim Saxton, then the chairman of the Joint Economic Committee.[89] Congress's purpose for setting the condition was to discourage countries from borrowing from the IMF (and through it, from U.S. taxpayers) without genuine need, and to encourage them to cease borrowing as soon as the need passes. Argentina is clearly a case where the higher interest rate Congress mandated should apply. However, of the nearly $25 billion of loans the IMF has approved for Argentina since Congress set the condition, three-quarters has been at the IMF's ordinary interest rate (the "adjusted rate of charge"), which averaged 2.29 percent during April and May 2003; only one-quarter has been at the rates of the Supplemental Reserve Facility, which at 3 to 5 percentage points higher are still far below what Argentina's government would pay if it could borrow in international capital markets. As research by the Joint Economic Committee has documented, the IMF has practiced similar policies in other countries.[90]

On September 5, 2002, the IMF allowed Argentina to delay repayment of about $2.8 billion in loans for one year. On November 14, Argentina defaulted on a loan from the World Bank. It missed a payment to the Inter-American Development Bank due January 15, 2003, and threatened to default to the IMF on loans due for repayment starting January 17. Argentina is one of the largest borrowers from all three institutions: as of December 31, 2002 it had $1.7 billion, or 21 percent of all outstanding loans, from the Inter-American Development Bank; as of June 30, 2002 (the most recent date for which information seems to be available), it had $8.5 billion, or 7 percent of all outstanding loans, from the World Bank; and as of May 30, 2003, it had $14.8 billion, or 19 percent of all outstanding credit, from IMF stand-by and extended arrangement loans.

[86] Decree 2312/2002; *Clarín* (2003a).
[87] In extemporaneous testimony for U.S. Senate (2002a); see also Mussa (2002).
[88] U.S. Statutes at Large, v. 112, part 4, p. 2681-219 (part of Public Law 105-277).
[89] 105th Congress, H.R. 3331.
[90] See Joint Economic Committee (2002b), p. 16. Countries that receive stand-by loans pay additional interest of 1 percentage point for borrowing over 200 percent of their quotas at the IMF, and 2 percentage points for borrowing over 300 percent of their quotas. As of April 30, 2003, Argentina owed funds to the IMF equal to 501 percent of its quota.

A default by Argentina would have punctured the myth that the IMF and other international financial institutions face no significant risk of default by member countries. (Some other member countries have defaulted, but their share of loans has been small.) To preserve the myth, the IMF's largest shareholder governments pressured it to renew Argentina's loans coming due. The IMF staff was reportedly reluctant to renew the loans, because ordinary procedures called for nonrenewal.[91] On January 17, 2003, the IMF's managing director announced he would recommend renewal, so Argentina did not fall into default even though it failed to make the payment coming due. On January 24, the IMF board approved a total of $6.8 billion in loans, whose effect was that Argentina would not have to repay any old loans coming due before August 2003.[92] Argentina repaid its overdue loans from the World Bank and Inter-American Development Bank on January 22. The World Bank turned around and lent Argentina $600 million on January 28, and the Inter-American Development Bank lent $1.5 billion on February 5. On January 28, Argentina also received a deferral until August of payments to foreign governments who belong to the so-called Paris Club.[93] Argentina won a game of "chicken" against the internati[redacted]nal financial institutions and[redacted]their biggest shareholder governments, setting a bad pr[redacted]dent for other large borrowe[redacted]

Borrowing, bai[redacted]**reciation, and defau**[redacted]facing mounting financial problems, governments i[redacted]tina and other develop[redacted]tries have often followed a four-step pattern: borro[redacted]n the domestic and inte[redacted]al private sector; seek a bailout from the IMF and ot[redacted]ources in the international [redacted]ic sector when the private sector becomes reluctant to le[redacted]further; depreciate the curre[redacted]y as a form of taxation to obtain resources from the dome[redacted]ic private sector, so the gover[redacted]ment can continue paying creditors; and if that does not w[redacted]rk, default. Argentina was u[redacted]usual in that it defaulted shortly before devaluing rather than after devaluing.

Defaults by Russia in August 1998 and Argentina in December 2001 call into question whether the second and third steps are at all beneficial for countries paying high interest rates on government debt. By the time the IMF made its last loans to Russia and Argentina before they defaulted, their problems were not temporary ones they could have overcome with a year or two of breathing room from IMF loans. Rather, they faced lasting problems of financing their government debt, given the economic policies they were following. Bailouts increase an already high government debt. Currency depreciation can be disastrous for companies that have borrowed in dollars or another major foreign currency, which often is the only way to obtain medium- or long-term financing at predictable rates of interest. A case exists that if governments must default, they should do it sooner rather than later, and avoid depreciating their currencies to raise resources for the government to pay foreign creditors. Arranging an orderly default is hard, though. The U.S. government, in collaboration with other governments and the

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[91] Beattie (2003), Blustein (2003).

[92] For Argentina's agreement with the IMF, see International Monetary Fund (2003).

[93] The Web sites of these organizations, which are listed in the references at the end of the study, contain information on the loans, in annual reports or other places.

IMF, is attempting to develop procedures that would make defaults more orderly without encouraging defaults merely because a government finds its foreign debts irksome.[94]

The importance of property rights to prosperity. The Duhalde government casually overturned property rights painstakingly defined and built up over many years. The tendency of the Duhalde government and most foreign observers was to treat the changes as technical details, and to neglect their revolutionary nature. In November 2001, Argentina was a country where contracts were generally, though not perfectly, enforced; bank deposits were secure; people were free to buy and sell foreign currency as they saw fit; price controls were few; and the government had honored its contracts with the companies, including many foreign companies, that were modernizing Argentina's infrastructure. By February 2002, Argentina had become a country where nobody could trust a contract; the government had frozen bank deposits; people risked imprisonment for buying and selling foreign currency at market rates of exchange; many goods were subject to price controls; and the government had broken the contracts that had fostered private investment in infrastructure. Where property rights are insecure, investing in the future becomes very risky. As was the case for many years before the 1990s in Argentina, economic activity then focuses on achieving short-term gains that do little for productivity rather than making the long-term investments that can result in big permanent improvements in productivity.

Debate over monetary and economic systems. Does Argentina's experience offer any general lessons about monetary systems? No; Argentina is an unusual case. Since declaring independence nearly 200 years ago, it has tried versions of every major monetary system except official dollarization. No system has provided monetary stability longer than half a generation, though some systems have worked better than others.[95]

The convertibility system, despite flaws, gave Argentina its longest period of monetary stability since before the Second World War. The bad end to which the convertibility system came does not show that currency boards are unusually prone to trouble. The convertibility system was not an orthodox currency board system and its experience was extraordinary even among recent, unorthodox currency board-like systems. Moreover, the proper way to assess the convertibility system is not to compare it to how an ideal central banking system would perform, but to how central banking has actually performed since coming to Argentina in 1935. During that time, the peso has depreciated against the dollar by a factor of more than 8 trillion, partly under pegged exchange rates and partly under floating rates. Nobody would claim that this performance, which has been one of the worst in the world, discredits floating exchange rates or central banking in general. It is at least as misleading to make general claims about fixed exchange rates or currency boards based heavily on the experience of the convertibility system.[96]

[94] For some ideas, see Lerrick and Meltzer (2002).
[95] Díaz Bonilla and Schamis (1999, especially Table 2) survey monetary arrangements from 1950 to 1998.
[96] As Edwards (2002, pp. 7-9) and, to a lesser extent, de la Torre and others (2002) have done.

It is also incorrect to claim that Argentina's recent experience represents a failure of free-market economic policies. When Argentina implemented such policies most vigorously, in the early 1990s, it enjoyed the highest growth it has had in recent decades. The recession that began in 1998 deepened into a depression precisely when Argentina reversed course and raised taxes, changed the basis of the exchange rate and then devalued the peso, froze bank deposits, unilaterally altered contracts, and in other ways increased the burden of government on the private sector.

VII. CONCLUSION

Argentina's economy shrank during the 1980s, ending the decade in a hyperinflation. After making drastic reforms to open the economy, privatize government-owned companies, and stabilize the currency, Argentina enjoyed strong economic growth starting in 1991 under president Carlos Menem. The economy suffered a recession in 1995 resulting from fallout from Mexico's financial crisis, but then resumed growth. However, by October 1998, soon after currency crises in Russia and in Argentina's neighbor Brazil, Argentina entered another recession.

Bad economic policy turned what should have been a one-year recession into a four-year depression. The economy was showing signs of growth in late 1999 when the newly elected president, Fernando de la Rúa, raised tax rates to reduce the budget deficit of Argentina's federal government. Following an internal political split in March 2001, the de la Rúa government enacted two more tax increases and made changes in monetary policy that undermined confidence in the one-to-one exchange rate of the Argentine peso with the dollar, which had existed since 1991. The economy continued shrinking and government revenue remained below projections.

In July 2001, international bond rating agencies downgraded the government's credit rating. Faced with rising costs of refinancing its debt, the government resorted to increasingly desperate measures. In December 2001 it imposed a freeze on bank deposits, turning what arguably could still have been called a bad recession into a true depression. Protests about the economy forced president de la Rúa out of office later in the month. In the interim period of three presidents in less than two weeks, the government defaulted on its foreign debt in a way almost designed to antagonize creditors. At the start of January 2002 Argentina's Congress selected as president Eduardo Duhalde, the runner-up in the 1999 presidential election. Within days, he instituted new policies that upset property rights painstakingly built up since as long ago as the 1800s—rights that underpinned such prosperity as Argentina had achieved. The economy shrank even faster, finally reaching bottom around August 2002 after falling 28 percent from its peak of 1998. A new elected president, Nestor Kirchner, took office on May 25, 2003.

Argentines have suffered so much in the last few years that a widespread feeling exists that the prosperity of the early and mid 1990s were a bubble depending on fortunate circumstances that could not persist, such as an overvalued exchange rate, unsustainable inflows of foreign capital, loans from the IMF, or obviously unsound government finances.[97] That was not the case. Starting in 1989, Argentina made fundamental economic reforms that greatly increased its attractiveness for workers, entrepreneurs, savers, and investors. Capital flowed in, some of it from foreigners, much from Argentines bringing back funds they had sent abroad or stuffed under their mattresses. The economy grew strongly because the fundamentals were much improved. However, continued growth depends on policies that encourage work, entrepreneurship, savings, and investment. Tax rates that are not overly burdensome, a reliable currency, and respect for private property rights are crucial. During the recession of 1995, Argentina's federal government after some hesitation reaffirmed its commitment to the course it had charted since 1989. During the recession that began in 1998 and developed into a crisis in 2001, the government moved increasingly far from that course.

Argentina's crisis was not a failure of free markets, as some observers have suggested. Rather, the crisis arose from the federal government's blunders in economic policy. The blunders impeded economic growth, which reduced government revenue and imperiled the government's ability to service its debt. Understanding the crisis is essential for suggesting how Argentina might achieve sustained long-term growth. The recovery Argentina is now experiencing is welcome, but it does not look like the beginning of sustained growth, because government policies have made the institutions of a market economy weaker than at any time since at least 1989. By granting loans to the Duhalde government, the international community granted legitimacy to policies that reduced economic freedom and made people poorer. It was greater economic freedom that permitted Argentina's economy to emerge in the 1990s from its decline of the 1980s. Long-term growth will require reversing the policy direction of the last several years and allowing greater economic freedom, anchored in respect for property rights.

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[97] The title of one book-length analysis of the 1990s (Tresca 2000) translates as "the illusion of convertibility."

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